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Reviews

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The Place of Jevons in the History of Economic Thought[1]

I

William Stanley Jevons, whose centenary we commemorate, is not one of those economists whose merits have failed to achieve due recognition. In his own life-time his work on various practical questions gave him a reputation far transcending the limits of his own profession. Since his death he has been recognised universally as one of the most outstanding figures in the history of economic thought. Not merely as economist but also as logician, philosopher, reformer, he stands out as one of the most remarkable men of the age in which he lived. He is one of the great Englishmen of the nineteenth century.

Yet if one is asked precisely to define the exact nature of his achievement, the answer is not easy. He formed no school. He created no system. He died early, and few of his many brilliant ideas were worked out with the care and precision which, in our treacherous and elusive subject, alone can assure permanent validity. Marshall has said that he was a classic, in that he originated ideas which were capable of becoming the basis for long trains of systematic development.[2] Mr. Keynes has described him as a pamphleteer in that he flicked his ideas at the world, not waiting for their full elaboration.[3] Both verdicts are just. It is the totality of his achievements, the wide range of his activities, the fertility of his imagination, the marvellous lucidity and attack of his expository style, rather than the perfection of any one of his constructions, which gives him his place in history.

II

Jevons' main contribution to theoretical economics is to be found

[1]This paper was read before the Manchester Statistical Society on 27th February, 1936, and is reproduced here by kind permission of the Council of the Society.

[2]*Memorials of Alfred Marshall*, p. 374. An author " is not for me classical unless either by the form or the matter of his words and deeds he has stated or indicated architectonic ideas in thought or sentiment which are in some degree his own, and which once created can never die, but are an existing yeast ceaselessly working in the cosmos. . . . I incline to regard Petty and Hermann and Von Thünen and Jevons as classical but not Mill." Marshall's verdict is especially significant. His earlier estimate of Jevons' place was by no means so favourable. See the *Academy* review reprinted in *Memorials*, pp. 93–100.

[3]*Essays in Biography*, pp. 188 and 211.

in his *Theory of Political Economy*.[1] The posthumous *Principles of Economics* is a fragment—and a rather disappointing fragment at that. The *Primer of Political Economy* and the *Money and the Mechanism of Exchange* are elementary text books—devoted chiefly to descriptive matter: what theory they contain has no particular novelty. But the *Theory of Political Economy* is a great seminal work.

To appreciate its historical significance it is necessary to go back a little. In the years following the publication of Mill's *Principles of Political Economy* a certain stagnation had overtaken the world of economic thought. The classical ferment had ceased to work. Yet the classical system, beautiful as it was, was incomplete. In default of new constructions, it was inevitable that attention should be drawn more and more to its deficiencies. It was inevitable that, if analytical economics failed to fill the gap, appeal should be made to other principles. In Germany, the sterility of theoretical speculation led to a definitely anti-theoretical reaction. It was not to be expected, said the leaders of the Historical School, that abstract analysis should yield knowledge of a living and developing social reality. The true instrument of sociological research was not analysis but history. In England this reaction never went so far. The classical system had been further developed and—what is seldom sufficiently recognised—the historical reaction over here was inspired, save perhaps in the case of Cunningham, by a much greater sense of proportion. Still the reaction was considerable. Cliffe Leslie may have been justified in protesting that

[1]Jevons has been fortunate in the critics of his theoretical work. At the present day there is a wealth of important commentary available for the serious student. The following are especially valuable :—

Marshall, A., "Mr. Jevons Theory of Political Economy." *Academy*, April 1, 1872. Reprinted in *Memorials of Alfred Marshall*, edited by Pigou, pp. 93—100. See also Appendix I to the *Principles of Economics*. 8th Ed., pp. 813—821.

Darwin, E. H., "The Theory of Exchange Value." *Fortnightly Review*. Vol. XVII, pp. 243—253. (A defence of Jevons against Cairnes.)

Edgeworth, F. Y., *Mathematical Psychics* ("London School of Economics" Reprint). Appendix V. "On Professor Jevons' Formulæ of Exchange."

Wicksteed, P. H., "On Certain Passages in Jevons' Theory of Political Economy." *Quarterly Journal of Economics*. Vol. III, pp. 293—314, reprinted in the *Commonsense of Political Economy and Selected Papers and Reviews on Economic Theory*, Vol. II, p. 734—765.

Wicksell, K., *Uber Werte, Kapital und Rente* (London School of Economics. Reprint) p. 20 seq.

Young, A. A., "Jevons' Theory of Political Economy." *American Economic Review*. Vol. II, No. 3, reprinted in *Economic Problems New and Old*, pp. 213—231.

Knight, F. H., *Relation of Utility Theory to Economic Method in the Work of William Stanley Jevons and Others*. *Methods in Social Science*, edited Stuart A. Rice, pp. 59—69.

Jevons was mistaken in suggesting that he wished altogether to abolish the deductive part of Economics.[1] But it is quite clear, as he went on to admit, that he regarded the urgent want of the time as induction and viewed with great suspicion long trains of deductive reasoning. There can be no doubt that this was typical of an important tendency. Some of the liveliest minds of the time were beginning to distrust theory or to lose interest in it ; and with the exception of Cairnes, the representatives of the classical tradition seemed to lack the intellectual vigour to defend their methodological position.

In such an atmosphere, the *Theory of Political Economy* was at once a challenge and a portent. Its author was a man who had already won a public reputation by the excellence of his work in applied economics. The tract on the *Serious Fall in the Value of Gold* and the more ambitious *Coal Question* satisfied the most rigorous criteria of the anti-theoretical school. Indeed, as we should expect, the methods which he had devised in this connection—the systematic use of index numbers and logarithmic curves—were infinitely superior to anything devised by the traducers of theory. Yet here was a work by the same author in which the necessity for general theory was proclaimed with the utmost emphasis and which itself was devoted almost entirely to curves and equations having no precise quantitative content. It was true, said the author, that the widest possible development of separate specialisms was desirable. " There will arise various sciences, commercial statistics . . . systematic descriptive economics, economic sociology and fiscal science. The whole subject is too extensive, intricate and diverse that it is absurd to suppose that it can be treated in any single book or in any single manner." But at the same time a general theory was indispensable. " As all the physical sciences have their basis, more or less obviously, in the general principles of mechanics, so all branches and divisions of economic science must be pervaded by certain general principles. The establishment of such a theory is a necessary preliminary to any definite drafting of the superstructure of the aggregate science."[2] Beyond this, and outraging even the feelings of some of the supporters of the classical methods,[3] it was contended that such a theory must necessarily be mathematical. " Our science must be mathematical," it said, " simply because it

[1]*Essays in Political and Moral Philosophy*, Second Edition, p. 72.

[2]*Theory of Political Economy*, p. 17. (Throughout this paper the references are to the 4th Edition of this work.)

[3]See, e.g., the protest of Cairnes, *The Character and Logical Method of Political Economy*, 2nd Ed., pp. 4 and 5.

deals with quantities. Wherever the things treated are capable of being greater or less, there the laws and relations must be mathematical in nature. The ordinary laws of supply and demand treat entirely of quantities of commodity demanded or supplied and express the manner in which the quantities vary in connection with the price. In consequence of this the laws are mathematical. Economists cannot alter their nature by denying them the name : they might as well try to alter red light by calling it blue." If it were only for its apology for the mathematical method, which, as Allyn Young has remarked, is probably still the best statement of the matter,[1] the *Theory of Political Economy* would still be memorable.

But it was not merely as a vindication of abstract methods that the book was a challenge. In that respect indeed it could be regarded as a continuation of the main tradition. It challenged also the content of existing theory. There is no doubt that Jevons believed that his discoveries were completely revolutionary. " In the last few months," he had written to his brother eleven years before, " I have fortunately struck out what I have no doubt is the true theory of economy, so thorough and consistent that I cannot now read other books on the subject without indignation."[2] And at the conclusion of his book, there is a celebrated plea against the " Noxious influence of Authority " as represented by " David Ricardo, the two Mills, Professor Fawcett, and others who have made the orthodox Ricardian School what it is,"[3] so vigorous that it can only have sprung from the most overwhelming conviction. At the present day, with the superior lights of more than half a century's development to guide us, this attitude may seem extreme. From our point of view, the development of theory may seem in some ways to have been much more continuous. But it is clear that, to Jevons, his book seemed almost a complete break with the tradition.

And indeed there can be no doubt that his great idea, the idea that the origin of the objective exchange values of the market was to be traced to the subjective valuations of individuals, was very revolutionary. However much we emphasise the continuity of analytical tradition, we must admit that the vindication of this idea has shifted the whole emphasis of analysis in such a way as to deserve the name of revolution.

[1]Jevons' " Theory of Political Economy," *American Economic Review*, Vol. II, No. 3, reprinted in *Economic Problems New and Old*, pp. 213—231.
[2]*Letters and Journals of W. Stanley Jevons*, Edited by His Wife, p. 151.
[3]*Theory of Political Economy*, pp. 275 and 277.

There are three aspects of this shift of emphasis which it is desirable to underline explicitly.

In the first place it puts the individual—the economic subject—in the centre of the analytical picture. It has been said that the mercantilists are preoccupied with gold, the classical economists with goods and the modern economists with men. Like most short statements about history, this puts too sharp an edge on it. Of course, it is not true that the classical economists regarded goods as having value without possessing utility ; and we know that they were passionately preoccupied with the conditions of human improvement. But it is true that they tended to take the demand side as unimportant and in consequence got into all sorts of analytical difficulties. And it is true that they never even attempted to go behind demand to the more fundamental subjective valuations that underlie demand, that they moved all the time in the world of goods without enquiring concerning their significance to the individual. The subjective theory of value changed all that.

In the second place, just because of this change, the new theory provided the basis for a far-reaching unification of the concept of the very subject matter of economics. My friend, Professor Hayek, has stated that Menger, Jevons' great contemporary, was the first to base the distinction between free and economic goods on the idea of scarcity.[1] I confess I find it hard to believe that some of the earlier English writers at least, even if they did not use the actual term scarcity in this connection, had not some inkling of the distinction in question. But no one who has perused those passages in which the classical writers were wont to preface their exposition of the theory of value with distinctions between goods which derive their value from scarcity and goods which are capable of indefinite multiplication, will question for a moment that the classical analysis left considerable room for doubt on this matter.[2] The subjective theory of value changed all that too. All goods which are limited in relation to demand, all goods, that is to say, whose marginal units possess specific importance, are economic goods and have value. The question of their mode of reproduction is a minor question of technical coefficients.

In the third place, as regards the actual causation of value, the

[1] *The Collected Works of Carl Menger*, London School of Economics Reprints. Vol. I, p. 13.

[2] In the classical theory of distribution only land is specifically designated as scarce. There is no ultimate scarcity of labour : only the scarcity of food (which derives from the scarcity of land) limits its indefinite multiplication.

subjective theory, did as it were, stand the classical explanation on its head. According to the classical economists, granted that commodities possessed utility, their value was determined by their cost, that is to say, by the value of the factors of production which went to make them. According to the subjective theory, given the quantities of the factors and their technical substitutability, their values (and hence the cost of production of particular commodities) must be regarded as determined by the preferences of the economic subjects.[1] These were not merely different ways of putting the same thing, to be reconciled by emphasis on " mutual determination." Save in the case of land, the classical economists did not recognise the influence of demand on the prices of the factors of production, still less on costs. The theory of distribution, was separate from the theory of value. In John Stuart Mill's system, it was even prior to it. In the post-Jevonian treatment, whether Marshallian or Austrian, it is simply its most general case. Goods would have value if there were no such thing as production, provided only they were scarce. The process of production has significance only in so far as it modifies the possibilities of choice.

All this and much more must have been surging vaguely in Jevons' head when he made the passionate challenge I have quoted. Yet it would be wrong to say that it was all clearly worked out in his book. If Jevons were to return to earth and to examine an up-to-date version of the theory of value such as we find, e.g. in Messrs. Allen and Hicks' recent essay, he would find indeed that the fundamental substance of his central idea—that the ratio of final degrees of utility is proportionate to the ratio of exchange—remained. But he would find many —perhaps to him sometimes disconcerting—changes in formulation.

He would find, for instance, that the link with psychological hedonism which he went to such pains to establish—he prefaced his theory of utility with a theory of pleasure and pain—had been not merely ignored but even deliberately repudiated. Modern economics has followed Menger rather than Jevons here. We do not draw curves with ordinates of absolute utility ; we express the significance of one commodity in terms of another at different margins. The idea of measuring utility cardinally tends more and more to disappear. Nor do we conceive of the diminution of relative utility in terms of psycho-

[1]This way of putting things is designed to sidetrack the objection of those who object to describing the conditions of supply of factor services (as distinct from the total potential quantity) as determined by demand. The fundamental distinction is between the preferences of the economic subjects whether as consumers or producers on the one hand, and the technical conditions on the other.

logical satiation. Jevons illustrated his theory to his brother by means of a dinner table illustration. " The decrease of enjoyment between the beginning and end of a meal may be taken as an example."[1] We would avoid doing this. We consider merely the diminishing substitutability of one good for others, in regard to the whole hierarchy of prospective uses—again a Mengerian rather than a Jevonian construction. There is no theory of pleasure and pain in modern economics ; we are concerned simply with the logic of choice.

He would find too that his theory had acquired much greater generality. We no longer think of the marginal utility (significance) of a good as dependent only on the quantity of that good we possess. We think of it as depending on the quantities of all the commodities in our possession. The accusation that the utility analysis is " atomistic," that by regarding the significance of marginal units of particular commodities as dependent on the supply of those commodities alone it ignores the " organic " inter-connections of our system of values, is irrevelant to modern analysis. Since the time of Edgeworth we have learnt to make utility a function of all the goods concerned. The indifference curve technique which we owe to Edgeworth, Fisher and Pareto[2] has been developed for this specific purpose.

But with all this, the fundamental discovery remains. The principle laid down as far back as 1862 in the paper presented to the British Association, that it is the marginal increment whose valuation is significant, is the basis of all subsequent development.

III

It is interesting to observe how Jevons fared in the attempt to apply this theory in detail and to develop a theory of distribution which should be consonant with its main requirements.

He was not very successful in elaborating a satisfactory theory of exchange. His celebrated equations of exchange[3] certainly showed

[1] *Letters and Journal of W. Stanley Jevons*, p. 151.

[2] It is desirable to emphasise the debt to Fisher. I do not think that it is sufficiently appreciated that his *Mathematical Investigations Into the Theory of Value and Prices*, first published in 1892, contains nearly all the innovations in this connection which we are accustomed to regard as characteristically Paretian.

[3] $$\frac{\phi_1\,(a-x)}{\psi_1\,(y)} = \frac{y}{x} = \frac{\phi_2\,(x)}{\psi_2\,(b-y)}$$

where a and b represent the quantities of two commodities initially held by the two economic subjects, x and y the quantities exchanged and ϕ_1 and ψ_1 and ϕ_2 and ψ_2 final degrees of utility to the economic subjects concerned

one condition of equilibrium, namely that, in equilibrium, for each party to the exchange, final degrees of utility must be proportionate to price. This is right enough so far as it goes—on the simple assumptions Jevons was making. But it does not explain the formation of price under competitive conditions ; and the so-called Law of Indifference and the very clumsy device of the " trading bodies " do not really help. The idea of relating marginal utility to demand at a price is due to Walras rather than Jevons.[1] And it was Edgeworth[2] who finally worked out the exact conditions which must be fulfilled if the price, the ratio of exchange, is to be completely determinate.

He was even less successful in developing a theory of distribution which should be coherent with his general theory of value. The very stern review of the *Theory of Political Economy* which Marshall wrote for the *Academy* is just, at least in this respect. He nowhere shows any real appreciation of the interdependence of the various elements determining the prices of the factors of production. Time and time again he seems to be on the brink of the modern theory. He sees that wages can be treated as rents.[3] He sees that the earnings of fixed capital are susceptible of a rent analysis.[4] He insists that wages and rents are determined by the size of the produce. But he does not develop a general productivity theory.[5] He accepts the classical theory of land rent without developing its implications as regards productivity : and, following the bad example of Walker, he treats wages as a mere residuum. All of which is very disappointing. For the idea that the value of ultimate commodities comes from their utility leads directly, as Menger emphasised, to the idea that the value of factors of production depends on the value of their products. All that is needed is the development of a technique for identifying marginal products.

But there is one section of his distribution theory which, I think, has often received less than justice. I refer to his theory of capital and interest. There is no doubt that he himself attached great importance to it. In the paper presented to the British Association it receives an emphasis equal to that accorded to the marginal theory of value

[1] The conception is clearly stated in the first memorandum presented by Walras to the Academy of Moral and Political Science in 1873, reprinted in the *Theorie Mathematique de la Richesse Sociale*, 1877.

[2] See especially the illuminating and sympathetic critique of Jevons in *Mathematical Psychics*, Appendix V.

[3] *Theory of Political Economy*, preface, p.1.

[4] *Ibid.*, p. 1 and Appendix II.

[5] Indeed there are places where he definitely denies the possibility of attributing to each factor its specific contribution to the product. See, e.g., *The State in Relation to Labour*, p. 91.

itself, and there is evidence in his letters that he regarded it as being of almost co-ordinate importance.[1] But it suffered from its association with the rest of his distribution theory. Marshall saw the defectiveness of its setting. But he did not realise its intrinsic originality ; and it was shamefully misunderstood by Böhm-Bawerk who certainly ought to have known better.[2] The misunderstanding was probably enhanced by Jevons' own habit of repudiating connection with the classical writers.[3] So that, even at the present day, there are many who have not appreciated the importance of his contribution here.[4]

The substance of the theory is that the rate of interest is *inter alia* a function of the time for which factors of production are invested before yielding their final product. The essence of capitalistic production is resort to roundabout processes which yield a higher—that is, a more desired—product than more direct methods, but which necessitate a period of waiting before the yield of investment accrues. Capital is, therefore, to be defined as that which enables us to undertake such processes—in Jevons' view, " the aggregate of those commodities which are required for sustaining labourers of any kind or class engaged in work." And the rate of interest is the rate at which the product is increased as the period of production is extended, divided by the total product.[5] It is thus time which is the central figure in the picture. This comes out very clearly in a letter which Jevons

[1]*Letters and Journal of W. Stanley Jevons*, p. 155. There is an interesting passage in a letter to his sister written as early as 1859, in which the whole doctrine is anticipated : " I think you do not duly appreciate the comparative importance of preparation and performance, or perhaps, as I may illustrate it, of capital and labour. You desire to begin and hammer away at once, instead of spending years in acquiring strength and skill, and then striking a few blows of immensely greater effect than your unskilled ones, however numerous, would be. We enter here into one of those deeply-laid and simple propositions of economy which I hope some day to work out in a symmetrical and extensive manner hitherto unattempted even by Mill and Adam Smith." The discovery of the Jevonian theory of capital is thus anterior to the discovery of the marginal utility theory.

[2]Böhm-Bawerk's error is sufficiently exposed by Wicksell, *Uber Werte, Kapital und Rente*, pp. 118—9.

[3]He admitted kinship with Ricardo (*Theory of Political Economy*, p. 222) but denounced the wage fund theory most emphatically (*Ibid.*, p. 268). And in his *Principles of Economics* he goes out of his way to criticise Mill's fundamental propositions respecting capital in a most unsympathetic manner. (p. 120—133.)

[4]As usual Professor Taussig is outstanding amongst English-speaking economists for having got things in their proper perspective. See his very just appreciation and criticism in his *Wages and Capital*, published as long ago as 1897. (Reprinted by the London School of Economics, 1933).

[5]" If F(t) be the product and F-(t) the rate of increase, the rate of interest is F-(t)÷F(t)." (*Theory of Political Economy*, p. 246.)

wrote to Edgeworth in the last year of his life—a letter which, curiously enough, seems hitherto to have completely escaped attention.

> " I have read your remarks on capital with care and interest : you will excuse my saying that you seem to be still deep in the fallacies of Mill. I fear you have not yet approached to a comprehension of my theory of capital as involving solely the element of time. I now see that the whole theory of the matter is implied in the expression for the rate of interest as given on p. 266 of my 2nd edition, some of the other expressions may be misleading. Indeed, as long as you speak of ' capital,' instead of capitalisation I think you are pretty sure to go wrong."[1]

If that does not constitute a fairly strong claim to be regarded as one of the founders of the modern theory of capital I do not know what does. There is no doubt that it is not set out with very great clarity. In the *Theory of Political Economy*, as distinct from the letter and the posthumous fragment, there are formulations of the capital concept which will bear too wage-fundish a complexion to be wholly free from objection. In all sorts of ways, the exposition is incomplete and incorrect. But the main formula is there. The essence of the use of capital is time. And the formula for the rate of interest, though framed on exceedingly narrow assumptions is correct. It is substantially the same as Wicksell's.[2]

Now, of course, this theory, much more than the subjective theory of value, is still to be regarded as an open question. It is quite clear that in the form propounded by Jevons it is in many respects too simple. It neglects compound interest, which is a phenomenon which itself vitiates the idea of the causal significance of any single average

[1] *Letters and Journals of W. Stanley Jevons*, p. 439. There is an equally trenchant passage in the fragment on capital, reprinted as Appendix II to the 4th Edition of the *Theory of Political Economy* : " To avoid confusion of ideas we ought not to speak of capital, but of capitalisation. Capital, if it consists of concrete wealth, is simply a theory and involves no idea of time : whereas we can have no reference to the use of capital without introducing time as the essence of the matter." (p. 295.)

[2] In his essay on *Jevons' Theory of Political Economy*, cited above, Allyn Young urges that the Jevonian theory of interest is to be regarded as an incomplete marginal productivity theory. This, I think, is correct. But the essence of the marginal productivity theory, as it seems to me, is its emphasis on the interdependence of factors—the marginal products are partial differentials—and this is conspicuous by its absence in the Jevonian theory. The essence of capital theory, on the other hand, is its emphasis on the productivity of lengthy investment, and this Jevons emphasises. Hence, while I should say he perceived the main thing about capital theory, he was still some way off the central feature of the general marginal productivity theory of distribution.

period of production.[1] It fails to provide a solution of the problem of durable goods. It considers only labour and not the vast multiplicity of different kinds of factors of production which in any full treatment of the problem must be worked into the picture. All this is painfully clear from recent controversy on the matter. But I confess that in my judgment, the critics of this theory have not really grasped its significant bearing. They pick away at unrealistic deficiencies in the first approximation and think that they have vitiated the central idea. It is, indeed, very easy to pick holes in almost any existing formulation of this theory of capital and interest. But I do not believe that anything which has been said, or indeed, that can be said, will vitiate the central notion that the essence of capitalistic production is the use of factors in processes which only yield their fruit after the lapse of time, and that the rate of interest is determined on the technical side by differences between the productivity of factors used for longer and for shorter processes. And that was the central thesis of the Jevonian theory of capital.

IV

I have lingered over Jevons' contribution to pure theory because it is there, in my judgment, that his work has greatest contemporary interest and significance. But a sketch of his significance as an economist would be ill-drawn, however slight it was, if it took no account of his work in the fields of applied economics and economic policy. For there was no field in which his touch showed greater evidence of sheer genius than in his capacity for handling facts, for marshalling large bodies of statistical evidence in a clear and succinct manner, and in extracting the utmost significance from them. Indeed, there have been some—I am not sure that Marshall was not one of their number[2]—who have held this to be his most conspicuous claim to fame. And if it is true—as I believe it is—that the occurrence of really great ability in applied economics is even rarer than ability in pure theory, then this claim may well be supported. For there have been few who have showed more ability here than the author of *The Serious Fall in the Value of Gold*.

But at the same time, by its very nature, the ***substance*** as distinct from the ***method*** of work in this field must have a more ephemeral significance than the discovery of general principles. The one remains,

[1]See Hayek: "Investment and Output," *Economic Journal*, June, 1934.
[2]See the letter to Jevons, reprinted in *Memorials of Alfred Marshall*, p. 371.

the many change and pass. The detailed facts of the fleeting day change and a new generation is confronted with new data. Of the many investigations which interested Jevons, most have ceased to have significance, save as history. We are left with the example of a method so fresh, so lively, so powerful that even when the substance it deals with is dead, we can contemplate its form with profit.

Jevons' most important incursions into these fields were three, his investigation of the trend of prices in the fifties and sixties ; his investigation of the coal question ; and his investigation of the trade cycle. There were many others, the investigation of seasonal pressure in the money market, the census of the gold coinage, the match tax, for example, which would have brought fame to a lesser man. But in his work they are of smaller importance. In one of these major investigations he was completely right ; in one as right as it is possible to be, predicting over more than half a century ; in one, so far as we can see, quite wrong.

He was dead right about the movement of prices. *The Serious Fall in the Value of Gold* is one of the most beautiful investigations in applied economics ever made, and its contentions have been vindicated up to the hilt by subsequent researches. He was right about the increase of prices as against those who said that no increase had taken place. He was right as regards its probable limits, as against those who held that the increase in the supply of gold must lead to a catastrophic inflation.

We cannot speak so decisively about the contentions of the *Coal Question.* It is clear that many of Jevons' estimates have been found to be defective.[1] [2] It is clear, too, that, at the present day, the prospect of a considerable decline in population renders many of his fears much less urgent. But his main thesis, that the rate of increase of the middle of the last century could not be maintained without rising costs of production, was surely correct. And he was correct, too, in supposing that, as time went on, the competition of other sources of

[1]On all this the comments of Sir Alfred Flux should be consulted in the edition which he edited.

[2]There is one analytical error in his arguments which has some practical significance. He argued that it was analytically wrong to suppose that the discovery of substitutes for coal could ever result in a slower rate of consumption on the ground that the demand for coal was on the same footing as the demand for labour, and the discovery of substitutes for labour had always, in the end, increased the demand for it. (*Coal Questions*, 3rd Edition, p. 140 seq.) But this is not certain, it is only true if the elasticity of demand is high. It is not excluded *a priori*, that the discovery of ways of economising fuel may lead to a diminished rate of consumption.

supply of coal would become increasingly difficult to meet. Of course, the fact that we have reached a period of competitive difficulties does not prove that these difficulties are all of the kind that Jevons predicted. Some are pretty obviously not. But can it really be denied that some at least of our troubles have been due to the growing age and inaccessibility of some of our older coalfields ?

It is in regard to the investigation of the trade cycle that we have to record Jevons' one comparative failure. It might have been hoped that, as the author of by far the best pure theory of capital that had up to then been propounded, and that as a member of your society which, as Mr. Ashton has recorded, was the scene of some of the best work in the early investigations of business fluctuations, he would have proceeded to solve this problem, too. And, if we look at the *Serious Fall in the Value of Gold* there is one passage which does, indeed, offer the highest promise of fruitful developments. " The remote cause of these commercial tides," he says, " seems to lie in the varying proportion which the capital devoted to permanent and remote investment bears to that which is but temporarily invested to reproduce itself."[1] There surely you have a text which neither Robertson nor Hayek would be ashamed of—a jumping-off point for nearly all that is most exciting in the modern theory of the trade cycle.[2] Unfortunately it was not to be. Having ascertained the existence of the cycle—there was nothing very new about this—and having thrown out this path-breaking suggestion, Jevons was beguiled into attempting to establish a correlation between the fluctuations of trade and certain astronomical phenomena—the sunspot cycle—using the price of corn either in England or in India as the connecting link ! There is really little that can be said for this construction. The cycles did not always fit ; two of the biggest crises of the century fell outside the series. The sunspot cycle was revised ; and the list of crises was found to be so elastic that it was possible to revise it too.[3] Few authorities take Jevons'

[1]*Investigations in Currency and Finance*, 2nd Edition, p. 24.

[2]The passage is quoted by Hayek as an anticipation of recent views on this matter in an historical appendix to the second edition of *Prices and Production*, p. 102.

[3]Professor Wesley Mitchell's comment may be quoted : " Jevons had an admirably candid mind · yet in 1875, when the sunspot cycle was supposed to last 11.1 years, he was able to get from Thorold Rogers' *History of Agriculture and Prices in England*, a period of 11 years in price fluctuations, and when the sunspot cycle was revised to 10.45 years he was able to make the average interval between English crises 10.466 years. To get this later result Jevons purposely left out from his list of crises ' a great commercial collapse in 1810—11 (which will not fit into the decimal series) ' ; he also omitted the crisis of 1873, and inserted a crisis in 1878 which other writers do not find." *Business Cycles*, 2nd Edition, p. 384.

periodicities very seriously now. In any case the methodological basis of the whole speculation was weak. It is quite possible that there may exist rhythms of temperature or solar activity affecting crop yields and economic activity generally. But is there any probability that they are the only disturbing forces? Is there any evidence that only this kind of shock can be transformed into cyclical fluctuation? How much better if, instead of chasing this statistical will-o'-the-wisp, Jevons had settled down to give a solid account of the way in which "variations in the proportion between fixed and circulating capital" can give rise to crises and the many ways in which these variations can be occasioned.[1]

There is one other of Jevons' suggestions in these fields which deserves notice even in the wide survey we are taking. In the *Theory of Political Economy* he suggested that by the examination of trade statistics it should be possible to discover the demand functions for particular commodities, as Gregory King had attempted to do in regard to the price of corn. He was quite aware of some of the limitations of such functions when obtained. "The subject is too complex to allow of our expecting any simple precise law. Nevertheless, their determination will render economics a science as exact as any of the physical sciences—as exact, for instance, as meteorology is likely to be for a very long time to come."[2] He did not follow up the suggestion, save by one or two very sketchy examples, and it is arguable that even with all the qualifications he made he was too optimistic of results. Nevertheless, he is to be held as one of the chief pioneers of such attempts to make closer the relation between statistics and the general theory of value.

V

Jevons' interest in the application of economic theory was not limited to the investigation of the relations of facts; he was intensely interested in the prescription of policy also. His lively imagination was continually playing upon the leading problems of the day—bimetalism, ideal money, and management of posts and telegraphs, the position of married women in factories, trade unions and industrial co-operation. And he touched nothing that he failed to invest with new interest.

Most of these issues are now dead. But the general issue of the

[1]The account in the *Primer* is fresh and interesting, but has no theoretical interest.

[2]*Theory of Political Economy*, p. 147.

place of the state in economic life is, if anything, more urgent than ever. As we should expect, this was not an issue which Jevons neglected. The opening chapter of *The State in Relation to Labour* contains a long discussion of the question whether we can frame general criteria of the desirable limits of state activity—a discussion which I fancy has had great influence on the subsequent thought on this subject. The conclusion is reached that no such criteria are possible. Jevons examines the desirability of non-interference in regard to the conditions of labour. He has no difficulty in showing that there are cases—the use of dangerous machinery is a case in point—where there seems an obvious utilitarian justification for bringing about certain results by direct regulation rather than by leaving them to be secured by the slower-moving forces of the market. From these and similar considerations he reaches the conclusion that there are no general rules—that every case must be examined separately. " The outcome of the inquiry is that we can lay down no hard and fast rules, but must treat every case in detail on its merits. Specific experience is our best guide or even express experiment where possible, but the real difficulty consists in the interpretation of experience. We are reduced to balance conflicting probabilities of good and evil."[1]

I confess I find this very unsatisfactory. It is easy enough to see why it was written. The Duke of Wellington, reviewing his troops, is reported to have said, " I don't know what impression these make on the enemy ; but by God, they make me afraid." It is easy to see that Jevons, the enlightened utilitarian, must have felt much the same, reviewing the way in which popular advocacy of economic freedom, then, as now, was wont to prejudice a good cause, by opposition to measures which were obviously expedient, and by appeal to dogmas which were obviously indefensible. It is easy to understand the strong urge to repudiate all that. As against that wooden view of social life which sets up dogmatic rights to unlimited freedom of the individual and dogmatic limitations of government authority, without regard to their utilitarian justification, the Jevonian case is unanswerable ; and it can hardly be better stated. But as the last word on the principles of industrial legislation, it is surely most inadequate. We do not believe that we can prescribe, out of the blue, detailed forms of industrial legislation which shall fit every conceivable state of industrial technique, and every conceivable type of population. But we do believe that there are certain analytical principles which must be

[1] *The State in Relation to Labour*, p. 6.

invoked if we are correctly to analyse each case on its merits. And we do believe further that, given the general structure of different forms of society, and given a knowledge of what people want, it is not impossible to frame rules about the desirability of different types of action. We are really not always compelled to start from scratch whenever we are confronted with new proposals.

Now, of course, it is highly improbable that if things had been put this way Jevons would have made any objections. He states very clearly that he is considering the relation between science and practice, not the status of scientific generalisations themselves. He is very careful to say that " all effects of the proposed act, whatever be their remoteness or uncertainty, must be taken into account. There may be collateral or secondary effects which will not be apparent for years to come."[1] It is obvious that such effects cannot be detected save with the aid of analytical principle. And he goes out of his way to say " in order to prevent the possible misapprehensions into which a hasty reader might fall, I may here state that I am a thorough-going advocate of free trade,"[2] which is a position he could only have reached by considerations very much transcending the merits of particular cases. But I do not think it is unfair to state that the net effect of his discussion here, however unintentional, is certainly to leave the impression that all questions of practice are completely open questions, and that there are no rules of any degree of generality which social science, combined with the utilitarian norms, may enable us to devise. Yet if this were to be regarded as the last word on the subject it would surely be very much to be regretted. Whatever may have been the case in Jevons' day, it is certainly not true today that the claims of general rules are over emphasised. We do not need any exhortation to be empirical. On the contrary, indeed, it is the lack of any body of generally recognised rules which constitutes one of our main difficulties. We have got into the most dreadful muddle dealing with each case " on its merits." No doubt this is because we have neglected to observe that this involves considering " the remoter as well as the more immediate consequences of action "—the Jevonian precepts might have seen us through if only they had been faithfully interpreted. But, as Jevons himself urged, the suitability of precepts can be tested experimentally, and we have had a long period of experimentation. Today, at least, it seems that if we are to get out of our present diffi-

[1]*The State in Relation to Labour*, p. 6.
[2]*Ibid.*, p. 13.

culties it will be, not by dispensing with general rules, but by seeking to reconstruct them on a sounder basis. Today, at least, we render homage to Jevons, not as destroyer, but as creator, not as one who loosened the hold of the old rules, but as one who, by his general services to economic science, prepared the way for a more rational formulation of the new.

LIONEL ROBBINS

Economic Analysis and Social Structure

I

The modern theory of choice and valuation claims to have disclosed the essence of economic activity, independent of the forms in which this activity manifests itself in space and time. Since natural resources are always scarce in relation to human wants, in every society man is compelled to make certain decisions, to perform certain actions, and to build up certain institutions which enable him " to make the best of it." That in fact man permanently strives after making the best of things, that is to say, that he distributes his resources between his various ends according to what he thinks or feels to be the relative " importance " of these ends, is the content of the economic principle, which thus formulates the true meaning of economic activity. This is not a postulate suggested from without which may be accepted or refuted by the person acting. This is an imperative from within from which no human activity can escape. It leaves the judgment of what is the " best," or the decision on ends, to the individual choice. It takes the means as being given in any individual case by objective circumstances. It only describes, how man in every case co-ordinates his stock of means to the order of his ends, but it describes this with a cogency which does not admit of any exceptions.

The bearing of the theory of choice is still disputed. Some regard its findings as tautological truisms,[1] others as metaphysical speculations which are said to interpret in a rather dubious way the only experience accessible, namely, observed choices.[2] But whatever its substantial importance may be, the modern theory of value has at least great formal significance. It has illuminated three particularities of method which constitute the intermediate position of economic theory between the other social sciences and the natural sciences.

(1) Economic theory is first of all based on a *deductive* method. We draw conclusions from a given set of assumptions. The

[1]See the pros and cons of this assertion in H. Bernadelli, *Die Grundlagen der Oekonomischen Theorie*, 1933, pp. 3—32.

[2]See the discussions concerned with the behaviourist approach. Cp. also various articles in *The Manchester School*, e.g., of L. Robbins (Vol. V, No. 2), of B. H. Higgins (Vol. VI, No. 1).

assumptions are concerned with the material substrata of economic activity such as factors of production, technique, organisation, etc., and with active forces such as human tastes, working incentives, etc., dominating the concrete extent and direction of economic activity. From what sources the assumptions or " data " are to be obtained in any particular case of theoretical analysis, is a problem in itself. Economics being after all an empirical science, there can be no doubt that the ultimate source of its data must be the observation of facts. But once this preparatory inductive work has been done, theoretical analysis itself is a purely logical procedure. It arranges the various data according to the formal order of the economic principle, that is to say, to their " subjective importance " or " preferredness," thus making explicit the hidden sense which is implied in the combination of the assumed propositions.

If we assume that demand for a particular commodity exceeds supply, that supply cannot immediately be adjusted to the changed demand conditions, that the buyers or at least some of them are prepared to offer higher prices, and that the sellers are directed by the profit incentive, then stating that under these conditions the price of the commodity in question will rise, does not add any new facts to our knowledge. It only discloses the inevitable result of actions which arise from this concrete order of ends and means. Concretizing ends and means implies, of course, the assertion of a concrete rule for the economic principle. In the case under discussion it is the monetary maxim which decides what actions are the " best " under given circumstances. To discover this maxim and with that to set up the concrete order of arrangement for the other premises of deduction, is part of the preparatory work of induction. The standard of " importance " will change from society to society, from individual to individual, and even in one and the same individual at various times. Therefore we cannot begin deduction unless we know, or at least assume, what standard determines the actions of preference in the individual case under consideration. Once, however, this " formal " datum is given, deduction is absolutely strict, because it is nothing but the logical arrangement of the " substantial " data according to this formal principle.

(2) Economic theory is further based on a *quantitative* method. In speaking of a quantitative method, we are not thinking of the statistical specification of abstract principles and general relations between economic elements which Marshall has called " quantitative

analysis," thus contrasting a particular method of applied economics with the "qualitative analysis" in economic theory which provides the principles and generalisations themselves. Neither is it a question of those mathematical symbols which modern economic theory more and more applies to the exposition and lucid representation of complicated interdependences. Both these ways of using numerical magnitudes and mathematical methods for the refinement of economic understanding, only reveal an original quantitative tendency in the economic problem. Since economic actions ultimately are actions of choice between various ends, and actions of distribution of the resources between the chosen ends, all that is being done can always be reduced to decisions on "more or less." A continuous series of ends has to be formed, every member of the series being marked with a co-efficient of "more or less importance." The total stock of available means has to be allotted in quantitative portions, which increase and decrease, both in their absolute amount and their relative combination, according to changes in the series of the ends and in the technical conditions of production. Waging a continuous war with nature's nigardliness, man's aim of making the "best" of things necessarily comes to making the "most" of things. The maximum-minimum calculation was introduced not only recently when differential equations appeared in the text-books. It was at the root of deductive reasoning when for the first time a conclusion was drawn by applying the economic principle to a set of assumptions about ends and means.

(3) If the principle of deductive arrangement is always one and the same, and if the essence of this principle is the colourless quantitative question of "more or less," all substantial interest is directed to the *data*. Once we disregard logical errors in reasoning, obviously the concrete value of knowledge or the realistic bearing of theoretical deduction, apart from the abstract value of logical conclusiveness, simply depends on how accurately the assumptions have been selected. In its ultimate effect, even the verification of theory which afterwards compares the deductive result with the real facts, does not go beyond a re-examination of the assumed propositions. That is the reason why subsequent verification never checks a theory positively. It is obvious and generally acknowledged that a clash between conclusion and reality tells against deduction. It is, however, no less obvious—though sometimes not remembered—that coincidence between conclusion and reality is no final proof of the

justice of deduction. It is always possible that one or more other sets of conditions quite different from those assumed, produce the same effect. Rising prices of a particular commodity may be due to rising demand or to falling supply in respect of this commodity, to a general rise in demand because of monetary changes, etc. The ultimate effect being the same in every case, verification cannot make up for the selection of unreal assumptions. It cannot confirm a theory with the same strictness as it can refute one, and the results of deductive reasoning, even if they coincide with reality, have only a likelihood and never a certainty of disclosing the true concatenation of the facts.

Under these circumstances, the immense importance of how the theorist handles his data is quite obvious. The value of economics as an empirical science ultimately depends on how accurately the natural and social background of economic activity is depicted in the assumptions of any deductive analysis. Here the autonomy of economics comes to an end. For the sake of classification it may be useful to demarcate a field of pure economics, though its findings are restricted to the few plain statements of the theory of choice. For the sake of scientific training it may be instructive to apply the formal method of economic analysis to varying sets of premises, irrespective of the practical importance or even the empirical existence of the facts embodied in these premises. But as soon as the economist sets to work with any realistic problem, no one can relieve him of the responsibility, not only of assuming his data but of answering for their occurrence, structural order and evolutionary tendencies in space and time. It is a question of personal inclination or ability whether the economist, and in particular the economic theorist who leaves the " realm of empty boxes," himself investigates the natural and social background of his analysis, or whether he looks for co-operation to those kindred sciences which explicitly deal with the psychological, political, legal and technical world of his data. Whichever of these two ways the realistic research worker may prefer, there is no third possibility open to him. The data of any empirical case are " given " only in the logical sense that they are not the ultimate result but the primary condition for the analysis at issue. Practically never are these basic raw materials kept ready for analytical processing, but they have to be dug out and transformed by previously understanding and interpreting the social process as a whole.[1]

[1]That it is economic reasoning itself which often presents us with the data for subsequent economic deduction, only proves that the social world does not move independent of the economic process, and that a complicated nexus of reciprocal causation connects the various spheres of human life. No " dynamic " analysis in the sense of describing a continuous economic process could ever be achieved, if the data were really " independent variables," that is to say, if the data were subject only to non-economic influences.

II

Surveying the whole of his field of research by starting with the most abstract generalisations and ending with the most concrete analysis of an individual phenomenon, the economist has to tackle the problem of data in a threefold manner, or rather comes across three different types of data, each requiring a different treatment.

(1) There are at the one end of the scale of abstraction the fundamental data or " categories " which constitute the necessary substratum of economic activity generally. Social grouping, natural and technical order of means, social regulation of the power of disposal, psychology of human wants and working incentives, these and other institutions and attitudes form the indispensable background for any materialisation of economic behaviour. Their historical manifestation changes, and they are interwoven in numerous combinations presenting different observable forms. But in one form or the other, these fundamental data are present wherever economic phenomena are being conceived as factors and products of natural and social life. Even the most abstract definition of economic behaviour—disposing of scarce means for human ends—implies the full richness of the natural and social process.

The immense variety of forces which this process continuously projects into the economic sphere, produces all the difficulties of defining economics not only in terms of subjective actions of choice, but in terms of objective institutions and processes with special functions and purposes within the social world as a whole. A satisfactory substantial definition of economics must not arbitrarily single out some of the fundamental data, such as has been the rule since the days of the " Wealth of Nations " and of a " Political Economy " up to the time when the causes of " material welfare " were regarded as the proper subject matter. Only an exhaustive examination of the totality of categories and of their relative importance for economic activity will ultimately present us with what is more than a brief defining label : with insight into the position of economics within science generally and within the social sciences in particular. This includes casting light on its substantial and methodic particularities, on its interdependences with biology, psychology, politics, law, ethics, etc., and on its sociological significance, that is to say, on what economics can contribute to the rational analysis of human society generally.

(2) At the other end of the scale of abstraction we find the specific data which adapt the generalisations of economic theory to the particular conditions of an individual phenomenon, such as e.g. the granting of a tariff to the British Iron and Steel Industry in 1932. Here the question arises what qualitative and quantitative form the general categories assume in any concrete transaction and event. This is the very promising field of econometric research which more and more refines the cruder descriptive and statistical methods of the older " applied economics." Though activity in this sphere of quantitative analysis in Marshall's sense is often being praised rather than practised, there is at least no dispute as to the prominence which scrutiny of the data has both in the descriptive and the normative section of applied economics, that is to say, in every theoretical analysis in the fields of economic history and economic policy.

(3) Up to this day, no such agreement has been achieved with regard to a third type of data which, in the scale of abstraction, stands between the categories and the individual specifications. Two examples will best illustrate the point in question. Suppose that in an economic system of free exchange for some ethical reasons the sellers did not react any longer to rising demand by putting up their prices and by increasing supply. No doubt, the system as such could not persist in the long run because it would fail in its main task, namely, in satisfying consumers' wants. Obviously the usual reaction of the sellers to rising demand, though based on a " free choice of action," means more than an arbitrary decision of some partners in the market, such as e.g. some buyers' decision to change the direction of demand. This latter decision may be taken in this or any other way without producing any general effect on the stability of the system as a whole. The sellers' normal behaviour, however, of first putting up prices and then increasing supply, seems to fulfil an objective function which cannot be deranged without upsetting the general working of the market.

Let us take a more extreme but even more illuminating case. We assume that both buyers' preferences and sellers' incentives become less and less influenced by money considerations, but give way instead to all kinds of personal, social, national, racial, etc., discriminations. In this way even physically homogeneous goods and equal money offers would not any longer be economically equal and simply exchangeable. Price relations would therefore become less and less determinate. In the end there would exist only bilateral monopolies,

and the functioning of exchange would be absolutely paralyzed. We see, even consumers' preferences cannot be left entirely " free," as soon as we think not only of the momentary choice of the individual but of the permanent working of the system.

These two examples reveal a striking antagonism between two divergent points of view in economics. As long as we keep the individual economic action isolated, the natural, psychological and institutional data may be arbitrarily selected and substituted for another. In such an analysis the individual action is cut off from the main structure of the social process, and is examined as a unique phenomenon " ceteris paribus." The far reaching significance of this famous working hypothesis has, however, not always been realised. In every isolating analysis it tacitly implies a structure of the system as a whole which makes it possible, that, during the particular process under consideration, other things in fact remain equal. In other words, it assumes such general conditions as secure the permanent working of the system.

If we now make these working conditions themselves the subject of research, we recognize at once that not every arbitrary combination of data fulfils these conditions. Every economic system is obviously based on certain *natural, psychological and institutional constants* which constitute the meta-economic framework of the individual economic transactions. These conditions, it is true, need not materialize in every individual case. Taking once more our exchange system, some buyers may safely give way to national and racial prejudices, and some sellers may rebel against the profit incentive, without endangering the persistence of the market as such. The constants are " average principles," and it depends on the order and stability of the various economic systems what number and degree of deviations can be tolerated.

Both these analytical points of view, the subjective approach from the individual actions of choice and the objective approach from the working conditions of an economic system, are equally legitimate. The objective point of view is at the root of the classical analysis, and is the ultimate basis of those objective laws of value and distribution which afterwards made the whole classical trend of thought so dubious to the successors. But though the subjective turn certainly was a necessary complement of classical theory, modern theory overshot the mark very much by claiming a monopoly of analysis for the individual valuations irrespective of the structure of the whole

order in which these valuations occur. It was perhaps justified to refute the classical ideas on objective " substances " and " real costs," such as the productive forces of the soil, the amount of labour embodied, of toil and trouble bestowed. But it was not justified to deny the existence of objective " functions," which contrast certain sets of data representing structural unities with other sets which combine only now and then in transitory constellations but never produce a stable order of integration.

It is true that even those combinations of data on which the functioning of an economic system is based do not materialize except through the medium of subjective valuations. Nevertheless, not every kind of arbitrary valuations brings about such a structural combination. The criterion always is whether attitudes and institutions which influence *some* economic transactions may be generalised for *all* transactions without impairing or at least transforming the working of the prevailing order. From this point of view it can easily be shown that, in a system of free exchange, e.g. the money incentive and free competition are basic constants, though the whole history of liberal economy is full of " non-economic " attitudes in bargaining, of monopolistic tendencies and other social and technical forms of rigidity. Obviously, in the reality of the past the deviations from the ideal structure of data were not large enough to destroy the market system as such. But we can easily demonstrate that all the main defects of the industrial system have arisen from precisely these deviations, and that the progressive tendencies towards " imperfect competition " will more and more reduce both the stability and the calculability of the prevailing order.

By following up analytical lines such as these, we avoid a scientific dogmatism which threatens to bar our knowledge no less rigidly to-day than once classical dogmatism did. Then, one fixed set of data fitting a certain stage of social evolution was claimed to represent the enduring structure of every true economic order. Now, after every structure in social life has proved to be a historical, that is to say, a changing phenomenon, the danger is imminent that we do not see the wood for trees. It is true that the wood consists of the individual trees and of nothing else, and that the wood as a whole is as subject to transformation, growth, and decline as any individual tree. But it is also true that the speed of change in the wood as the totality of trees is different, namely, much lower than in the individual tree, and that therefore the order of the wood appears as a constant,

compared with the variations in the life of the tree, a constant which influences and at least limits these individual variations. And, finally, it is true that this relatively stable order of the wood and the conditions of its existence cannot be read in the form or history of some individual tree picked out at random, because this tree may be located more or less favourably than the average or may even belong to an alien species. Only those qualities of the individual trees which make their growing together possible and will maintain their co-existence, tell us about the structure of the wood and about those general conditions which found and largely determine even the individual conditions of existence and change.

III

What structural analysis really means and how much it bears on the correct interpretation of real phenomena, can be better demonstrated by a practical example than by methodological expositions and metaphorical comparisons. In the last number of *The Manchester School*, Professor M. Polanyi published a very interesting survey of the achievements of the present economic system in Russia and its recent transformation.[1] After describing the actual organisation of production and distribution in Soviet Russia which Stalin has called the " first or socialistic phase " of Communism, Professor Polanyi comes to the conclusion that " this economic system of Socialism is in its mechanism almost identical with that of Capitalism, the main differences being that ' ownership ' is not transferable by private agreement since the Government appoints the ' owners ' (managers)."[2] This unusual judgment of the Soviet economic system is based on some important reorganisations that have occurred in connection with the Second Five Years' Plan :

(1) The idea of enterprise is about to be substituted for the post-revolutionary bureaucratic form of business management. During the last four years individual initiative and even the monetary incentive have been widely rehabilitated in their former function as the motive forces of the economic mechanism. Enterprises are now to be conducted on a profit basis, and in the form of " socialist ownership "

[1]M. Polanyi, " U.S.S.R. Economics—Fundamental Data, System, and Spirit," *The Manchester School*, Vol. VI, No. 2, pp. 67—89, recently published as a separate brochure by the Manchester University Press. The following remarks are mainly concerned with the second part of the paper, entitled " The Economic System."

[2]*Op. cit.* p. 82.

business managers are entrusted with personal responsibility.[1]

(2) A price system more and more supplants centralized rationing of goods and productive factors. " Wages " are " to be fixed so as to assure a sufficient supply of workers of required qualification." " Soviet Trading in open shops was initiated." The Russians are recognizing " the increased utility which arises when each economic unit strives for the most profitable activity as measured in market prices."[2]

(3) Even investment is going to be decentralized. " The local Soviets approach the central Planning Commission with various projects which they consider to be profitable. From these projects the Commission chooses a certain number which are thought to be sound and the local authorities are then provided with the money to start them and are held responsible for their success. Thus the Commission actually undertakes, towards the local authorities, merely the function of a financier to an entrepreneur."[3]

(4) " The marketing system is expanding further and might soon become the mainspring of most economic activities."[4] " Each person should try to make the best of his capacities so as to gain promotion and a higher income. Each business should use its resources so as to assure the best returns. Each consumer should buy at any shop the article he wants at the cheapest price at which he can get it." But such a system does not seem " compatible with centralized planning. Actually the planning of local enterprises by the central government has become almost a formality in U.S.S.R. The system can be best envisaged if we conceive of each private firm in a capitalist country being made into a limited company, the State holding the shares and appointing a manager to each enterprise."[5]

(5) According to Professor Polanyi's interpretation the abolition of private ownership of the means of production has not changed the essence of the " economic mechanism." Public ownership is of great significance from the psychological point of view, because " the economic consciousness of all workers becomes unified under a common symbol. It is for this simple and materially almost unimportant fact that the U.S.S.R. is a different world from Capitalism."[6] But the economic system which is developing there " might become synonymous with Capitalism."[7]

Before we subject these conclusions to a structural analysis, we

[1]*Op. cit.* p. 81. [2]*Op. cit.* pp. 81, 82. [3]*Op. cit.* p. 82.
[4]*Op. cit.* p. 87. [5]*Op. cit.* pp. 81, 82. [6]*Op. cit.* p. 87. [7]*Op. cit.* p. 87.

had better state once more the issue of our investigation. It is not a question of criticizing the facts so exhaustively presented by Professor Polanyi; we take them for granted. Neither are we interested in stressing divergent facts which might perhaps be pointed out, nor in the emphatic protestations of the Soviet Leaders that the "socialistic phase of Communism" is to be regarded merely as a transitory stage to true Communism. Further, as Professor Polanyi does, we are refraining from any positive or negative valuations, but want only to understand how the economic mechanism of Russian Socialism works. We are prepared to admit with Professor Polanyi that contemporary Russia does not present us with "a complete logical system of economy," but nevertheless to assume that by combining its structural elements "it seems possible to outline its tendencies towards such a system."[1]

Though we do not underrate the psychological and political significance of the economic reorganisation in Russia, we shall disregard it here. It is the economic mechanism, the order of production and distribution, the co-ordination of both these spheres of economic activity, and the identity or disparity between Capitalism and a planned market system with public ownership we are interested in. With that our principal problem can be formulated very briefly as follows. As both Capitalism and the contemporary Russian economy are systems of market economy, differing from each other above all by the prevailing order of property, is their economic mechanism indeed "almost identical?" Or does the ownership of the means of production, whether private or public, influence not only the political and psychological environment of the market process, but its economic functioning itself?

(1) We start with the new Russian catchword of socialist enterprise and socialist ownership. Professor Polanyi's description of the recent reorganisation in Russia clearly refutes the orthodox views of some writers, such as Max Weber or Ludwig von Mises, who think decentralized rational business management incompatible with public ownership. We need not overstep the boundaries of large scale capitalist enterprise in order to realise that rational accounting ("Wirtschaftsrechnung") and competitive activity are conditioned by freedom of disposal, but not by private ownership on the side of the

[1] *Op. cit.* p. 81.

responsible manager.[1] These writers certainly misinterpret the market process if they attribute the functioning of competition to one and only one order of property, namely, the private order. Nevertheless, Professor Polanyi is perhaps overshooting the mark, if he contends that the order of ownership is without any significance at all for the structure of enterprise, accounting and competition.

Referring to more familiar experiences, we can best illustrate the influence of the form of ownership on entrepreneur's activity by comparing the competitive position of a department store with that of a specialist shop. It is evident that supply is much less flexible in the specialist enterprise than in the department store. The profit and even the existence of the former entirely depends on the market conditions of one single group of commodities, while the latter is only interested in making the largest possible total profit irrespective of the profit and even of the price obtained from the sale of any individual commodity. A change in demand can ruin the specialist shop, while the department store, though offering among other things the commodity no longer in demand, may be fully compensated by the rising price of the commodity now asked for. The mere fact that the supply of various goods is combined is a kind of insurance against the risk of economic changes, because it loosens the connection between the total return and the movement of individual prices. Overhead costs can be distributed according to the changing selling value of the individual goods supplied, and even losses incurred in the prime costs of some commodities will be covered by the windfall profits of others.

Precisely this, and on the largest possible scale, is the position of supply in a system with public ownership of the means of production. Balance between prices and costs must be secured only for production as a whole. There need not be any unsaleable goods in the socialist market. If necessary, some commodities may be given away for

[1]How fundamental the distinction between ownership and disposal is for the rational construction of a socialist economy, was first expounded by E. Heimann in *Mehrwert und Gemeinwirtschaft*, 1922.

For the possibility of rational accounting even in a centralized system of planning, see Kurt Mandelbaum and Gerhard Meyer, "Zur Theorie der Planwirtschaft," *Zeitschrift fuer Sozialforschung*, Vol. III, pp. 228-262. *Cp.* also B. Wootton, *Plan or No Plan*, and the discussion between Dickinson, Dobb and Lerner in *Review of Economic Studies*, Vol. II.

That the economic incentive is in principle independent of the personal *status* of the business administrator, but mainly determined by his business *function*, has already been shown in Chapter V of Wicksteed's *Common Sense of Political Economy*, 1933 Edition, Vol. I, pp. 175—181.

nothing until stocks have been sold off and production has been adjusted to the new demand conditions, if only the prices of the remaining goods are increased correspondingly. Overproduction in the capitalist sense, that is to say, an unsurmountable discrepancy between costs and market prices, need not occur, since the economic authority can always adjust the sales of individual commodities by means of price-control.

(2) With that we come to the pricing process under public ownership. Here we have first of all to complete Professor Polanyi's report on the facts. It is certainly true that the early attempts at introducing a centralized system of rationing consumption goods have been given up in Russia, and that a price system has been restored. It is, however, not a system of free formation of prices based on the autonomous balance between supply and demand that prevails there to-day. It is left to the consumers what commodities they like to buy and in what shop, as it is now in general left to the worker what job he chooses. But the value in exchange of goods and services, that is to say, prices and wages, are largely manipulated by central decision. Concretely speaking, the authorities are free to meet a change in the demand conditions just as well by varying prices as by adjusting the quantity of future supply, because the sale prices of individual commodities are independent of their respective cost conditions and because the wages of the various categories of labour can be fixed irrespective of their " natural " supply. In this way the pricing process, far from being inconsistent with planning, becomes in fact one of the most efficient instruments of planning.

We leave it undecided whether the Russian authorities are using this instrument of a " social monopoly " in a really efficient manner. It is in the structural possibilities of a market under public ownership we are interested. There cannot be any doubt that the distributive operations of such a market fundamentally differ from our capitalist experiences.

Not only are the sale prices of the individual commodities independent of their individual costs of production. The nominal incomes of the consumers which largely constitute these costs of production need not any longer determine the *real* incomes. For instance, by fixing low prices for the necessary requirements, the planning authorities can compensate the social effects which are implied in fixing wages according to the relative scarcity of qualifications and to individual efficiency. They may utilize the money

incentive with managers and workers in the sphere of production, and thus may carry out a system of cost accounting as strict as under capitalist organisation. But the instrument of price discrimination enables the authorities to apply any other principle in the sphere of distribution, in this way either levelling down or even widening the disparities of real purchasing power produced by the gradation of money incomes. Certainly the Soviet authorities are using price discrimination for equalitarian purposes, and on the ground of the political and cultural aims of traditional Socialism we are accustomed to connect such tendencies with the transference of the means of production into public ownership. All the more stress must be laid on the fact that this connection cannot be based on purely economic grounds. As instruments of economic distribution, public ownership and price discrimination are in principle socially neutral, and may be used as a means to any political end whatsoever.

(3) We cannot, however, fully understand the functioning of the socialist market without taking in account the policy of investment. In principle, investment is not left to the free decision of the individual managers, nor is it accomplished through the medium of a true capital market.[1] The regulation of investment is in the hands of the central authorities that first of all determine the minimum amount of annual saving.

As price-fixing for consumption goods is the most efficient way of enforcing saving, public ownership becomes the basis of the formation of capital in a socialist system. Moreover, it does away with one of the psychological obstacles saving meets with under capitalist organisation. Here private investment does not only increase economic productivity but also the social power of those administering the capital invested. Therefore, to the masses of the working population in Western countries private saving is more than a question of " time preference ": it expresses their general attitude towards the prevailing social system. In contradiction to that, in a socialist order with public ownership of the means of production, these

[1]Professor Polanyi points to the fact that nowadays local enterprises are authorised to make investments up to a million roubles without asking for the approval of the government (*op. cit.* p. 82). There we must not overlook the fact that generally the size of a socialist enterprise in Russia by far exceeds the normal size of capitalist undertakings. Even the decentralized socialist trusts can only be compared with the biggest Western combines, so that the upper limit for free investment quoted (equalling at most £7—8,000 in actual purchasing power, according to Professor Polanyi's estimates of the real value of the rouble, see pp. 72,74) does not leave them a wide scope.

distorting considerations may disappear, and saving may really express the time preferences of the majority, provided that the decision on the rate of saving is being taken in a democratic manner.

But what is more important for the policy of investment, public ownership removes the antagonism which exists between producers and consumers under the technical conditions of large scale Capitalism. Here the classical principle that private producers are not interested in a particular locality or section of industry and therefore can easily adjust supply to changing conditions of demand and technique, is no longer true. The sunk costs of past private investment destroy the community of interest, on the one hand between the technical pioneers and the bulk of producers, on the other hand between the investors of capital and the consumers.

It is public ownership which creates a new community of interest even under the technical conditions of large scale production. It establishes, so to speak, a pool of profits in which the social assets of higher satisfaction and the social liabilities of capital depreciation are put to one and the same account. Certainly a socialist system also cannot avoid dynamic losses as such, and has to charge them to the national account by adjusting prices or taxes. But it can restrict the secondary effects of these losses, namely, cut-throat competition and cumulative distortions, which permanently threaten the equilibrium of the capitalist market. Once the risk of investment is separated from the responsibility of the decentralized business units, no kind of dynamic change needs to provoke any precipitate reaction dangerous to the circular flow as a whole, because the economic existence of individual managers and groups of workers cannot be affected but by an express decision of the central authority. Moreover, these decisions themselves can be based on a more rational accounting of all social costs implied than is possible under Capitalism. Here the overhead costs of labour, though usually burdening any dynamic progress, never appear in the entrepreneurs' calculations. In a socialist system, the only entrepreneur, the State, bears also the burden of the displacement of both labour and capital.

Thus public ownership is not only a useful technical instrument, but is obviously the very social precondition for the planning of investment. "Capitalist planning," though a popular political catchword to-day, is, from the economic point of view, a structural misconception. Centralized interference with investment under a system of private ownership of the means of production is only a

worse form of interventionism in general. It violates the basic principle of free competition, because by an external authoritarian action it thrusts profits on one party and losses on the other, irrespective of their internal market position. Unless a community of interest is established between the partners as to the aims and effects, planning of a market system is self-contradictory and will always meet with evasion. Therefore, investment can be planned efficiently only if, by public ownership, the risk of capital depreciation is equally distributed, and is born conjointly by those who ultimately benefit by new investment : the community of consumers. How the community, by means of taxation or price-fixing, afterwards distributes this burden among its members, again is a question of the political aims pursued which may tend to equality or to different forms of class-rule. Like price discrimination planning of investment is in itself a neutral instrument whose purely technical character is positively confirmed by the fact that it is adaptable to the most divergent social ideals.

(4) Now we can formulate the main similarities and differences between the capitalist market and the socialist market in contemporary Russia. They coincide in so far as (*a*) free choice is given to the individual member of the community as to the manner in which he wants to use his capacity to work and to spend his money income, (*b*) the same method of rational cost accounting is applied, based on the market prices of the productive elements.[1]

They differ in so far as in the socialist market, (*a*) by way of price-control the connection between costs and sale prices of the individual commodities and equally between money incomes and real incomes is loosened and even dissolved within wide bounds, (*b*) public (and even individual) saving does not express anything else than the time preferences of the authorities and private individual concerned, (*c*) investment is planned and can be effectively planned because a community of interest exists between the decentralized representatives of the only entrepreneur existing, and between this entrepreneur himself and the authoritative groups of the consumers,[2] (*d*) the

[1]Coincidence at least exists in respect of accounting the prime costs of labour and raw materials. As to capital costs, a socialist system can estimate the rate of amortisation and even of interest in the same manner as Capitalism, though it need not do so if investment is planned by way of rationing.

[2]That in contemporary Russia planning assumes a dictatorial form is in no way connected with the *economic* structure of a planned market. Again, it is a question of the political, not of the economic organisation of such a system whether the authoritative will of the consumers is expressed by the majority vote of a democratic representation or by the dictatorial decision of a ruling minority.

calculation of investment can be based on a rational accounting of social costs and social returns, because both the overhead costs of labour and of capital go to the account of the only usufructuary of investment, the community as a whole.

(5) It is exclusively public ownership from which these structural particularities of the socialist market arise. It releases the individual producer, manager or worker, from the bondage which, under a system of large scale Capitalism, ties him to one or a few localities and lines of business. It establishes a clearing system for expenditure and return on a national scale, and thus produces that community of interest from which central planning can start by means of price discrimination, public saving and control of investment.

What gives, however, the nationalisation of the means of production its fundamental significance, is the fact that it transforms the capitalist market with its definite social implications into a purely technical instrument for the distribution of resources and output, conformable to the most heterogeneous social ends. Under a capitalist system of property the social results of the exchange process are predetermined by the initial market position of the partners, because the national dividend is produced and distributed in harmony with the relative scarcity of the productive factors and with their allocation among the members of the system. One might perhaps call even the capitalist market a neutral instrument in so far as it constantly reproduces the initial social position of the partners.[1] Under public ownership, the social impartiality of exchange is very different. Here most of the social problems which the autonomous process of Capitalism solves incidentally are assigned to planned action and central decision. In this way the market becomes an implement for producing and distributing any quantity and quality of output

[1]The initial positions may certainly be changed by redistributing the property rights of the members. But while in a socialist system the recurrent planning decisions represent an indispensable part of economic activity itself, in Capitalism redistribution of property falls outside the economic mechanism and means a political reorganisation of its social data. The capitalist equivalent to socialist planning is interventionism because it attempts to deflect the autonomous tendencies of the exchange process. The narrow limits of its efficacy, however, and the unavoidable reactions of the capitalist market on intervention mark the structural difference.

Some writers point to a secular transformation of the social order which the autonomous process of Capitalism is said to bring about by furthering the concentration of capital, by increasing the misery of the masses, etc. Even if we take those changes for granted, their existence confirms rather than refutes the strict and indissoluble connection between free exchange and the underlying social order.

according to any social standard which, given existing resources, might accord with the planners' intentions. Thus on the surface, we might confirm Professor Polanyi's final conclusion by saying that a planned system of this kind could even imitate the social effects of capitalist production and distribution. So freely manageable is a market system under public ownership that it can achieve by deliberate action what Capitalism must leave to an autonomous and immutable social process. The ultimate difference in the economic mechanism of both systems is perhaps best illustrated by this paradoxical result.[1] At the same time we become aware of the true problems of a planned system. By transforming the economic process into a merely technical instrument, it transfers the crucial tasks to the political and psychological sphere. Subjective decision and personal responsibility take the place of an objective mechanism for whose working in Capitalism no individual or authority has directly to answer. This, not the question of " rational accounting," is the touchstone of planning.

IV

Structural analysis of the economic data is not only a means for disclosing the general working conditions of economic systems other than Western Capitalism. It is of the greatest practical importance for all questions of economic policy within our prevailing order. Most of the well-known theoretical fallacies and practical mistakes which constantly confuse discussion and activity in such fields as wage policy, monetary management, international trade, etc., can ultimately be traced back to structural misinterpretations, either to uncritical generalisations of partial effects or to a careless transference of measures of intervention, from the well defined section to which they belong to divergent states and processes.

Since sections of industry sometimes benefit from tariffs, a universal tariff system is said to increase national welfare. Since in a system of small scale organisation the individual business units can easily change

[1]This result has more than a merely illustrative significance. On the one hand, it shows that Socialism in the usual conception of a social system with substantial aims and definite ideals is not identical with every social system in which public ownership prevails. Nationalisation of the means of production is certainly a necessary but by no means the sufficient condition for the realisation of these ideals. Concentrating in theory and practice on nothing but the formal requirements of a socialist *economy* might ultimately achieve the very contrary of a socialist *society*. On the other hand, this social neutrality of the economic mechanism at issue may perhaps further the unprejudiced scientific discussion of planning and of its structural conditions.

over from one section or location of industry to another, perfect competition in both the home market and the world market is still being praised as the universal remedy, though for a long time already the industrial system has been overburdened with sunk costs. Since inflationary measures can set afloat even a bankrupt firm, unlimited expansion of credit is posing as the Newest Deal. Since increased money circulation cannot but force up prices if all productive factors are fully employed, cheap money and public works are combated even in times of depression.

Obviously these popular disputes cannot be settled by professing a general principle, such as free trade or autarchy, neutrality of money or any alternate dogma. We must be told what the structure of the system as a whole looks like, how the data are co-ordinated in the concrete phase of the economic process in question, before we can state whether the introduction of new machinery effects long lasting unemployment, whether a fall of prices endangers the stability of the market generally, whether new savings will stimulate investment or wage cuts will induce employment. It is even of no practical use to start theoretical analysis from the assumption of a general equilibrium if, in a system such as Modern Industrialism, every single economic phenomenon is subject to the rhythm of the trade cycle.

Deductive truth in the sense of logical conclusiveness, it is true, does not depend on a structural selection of the data, but the practical value of the result does. The most minute investigation into the econometrical details of a concrete phenomenon cannot make up for a failure in interpreting the general working constants of the system at issue. Economics belongs to that type of science in which the relationship between the whole and the parts sets us the true problems. Therefore, we are in urgent need of a kind of theoretical analysis which instructs us about the changing relationship of these fundamental components in the various economic systems and their different stages of evolution. It is structural analysis that, among the immense variety of logically possible combinations of the data, selects those systematically connected combinations, which condition the persistence of the various economic states and processes. In this way it completes the work of empirical observation, numerical description and deductive concatenation of the individual items. By working out the ideal types of historical or imagined orders, such as the primitive associations, the manorial organisation, the various forms of market economies and of planned orders, structural analysis of the data

develops the pure theory of choice and valuation into the realistic theory of economic systems.[1]

A. Löwe

[1]If we wish to do justice to the various modern schemes which try to reform, to complete and even to supplant the prevailing analytical approach by offering an historical or a sociological or a statistical or a normative method of economic research, we have to interpret them as advances in the direction of structural analysis. Certainly Institutionalism, Welfare Economics, Economic Sociology, Neo-scholastic Universalism are wrong in so far as they disregard or even deny the fact that economic activity bears a uniform quantitative character in all spaces and at any time, and that the deductive method is adequate to this nature of the object of research. They are right, however, in so far as they search for structural generalisations which bridge the gap between the meta-historical truth of pure theory and the piecemeal investigations into transitory historical phenomena undertaken by applied economics.

An interesting view has been recently presented by H. W. Peck in his book on *Economic Thought and its Institutional Background*, 1935, in which the evolution of economic theory and economic history are expressly correlated. Peck holds that the order of an historical economic system is mainly determined by the relative importance which the various natural and social factors of production have for growth and progress of society. In his opinion, the rivalling theoretical conceptions only reflect different stages of historical evolution with different structures which are ultimately determined by the relative status of the different social groups that supply the various productive factors.

See also my *Economics and Sociology*, 1935, where the structural constants of equilibrium theory are contrasted with the constants of the real process of the Industrial System.

Imperfect Competition and Trade Depression

I

Recent work on the economics of imperfect competition has frequently employed statements like that of Mrs. Robinson[1] " When a firm finds that the market is becoming uncomfortably perfect it can resort to advertisement and other devices which attach particular customers more firmly to itself," which may appear to imply that advertisement necessarily renders demand for the advertiser's product less elastic. This is not the case : it is quite possible that the result of advertisement may be to increase the profits of the firm by simultaneously raising the demand curve and rendering it more elastic. This would tend to be the case with a firm which abandoned a small local market, over which it had considerable control, in order to compete for the larger prizes of the national market.

There is no reason why an entrepreneur who is faced with two alternative methods of increasing his profits by an equal amount, at an equal expense by advertisement, should choose the one giving a lesser rather than a greater elasticity of demand, unless the greater safety of the former position be recognised. This point is of some importance in the " real world " of most modern economies, where the entrepreneur to a certain extent purchases his " demand " and has, within limits, some choice as to what sort of demand curve he will buy : where, moreover, the national income available for expenditure is liable to undergo fluctuations causing variations in the effective demand for most types of goods. It is possible, upon certain assumptions, to measure and compare the risks of otherwise similar firms of which the conditions of demand exhibit different elasticities.

II

We must commence by considering the nature of the decisions which the entrepreneur will make in choosing his advertisement policy. Let us first define the position of the firm in equilibrium, before any advertising expenditure takes place. The average cost curve, embodying the normal profit of the entrepreneur, is tangential to the average

[1]*Economics of Imperfect Competition*, p. 101.

revenue curve. The latter is drawn upon the assumption that all alternative products are produced under conditions of minimum cost, given the efficiency of the factors of production and the ability and elasticity of demand for income in terms of effort of the entrepreneurs in charge. Thus the normal profit of the entrepreneur is only a profit in so far as it is payment for the ineliminable element of uncertainty bearing (in Knight's sense) which he is undertaking. As no one else is able or willing to encroach upon his profits, and as he is himself either not able or not willing to increase them, he is receiving his marginal product, *qua* entrepreneur, in so far as an entrepreneur can be conceived to have a marginal product.

Let it be assumed that at any given price it is technically possible to increase the revenue of the firm by means of advertisement or differentiation of the product. Chamberlin[1] is mistaken in his complete separation of these two operations : if the entrepreneur completely alters his product, transferring his energies and capital to another field of industry, it is no doubt necessary to draw a new curve. Indeed if he adheres to his product it is probably necessary to treat the problem as Harrod[2] does, by means of an envelope of cost curves. But this is inadmissible in short period analysis : it is better to assume that the cost curve of an industry is determined by considerations of technique and co-ordination associated with the plant producing the original commodity. If this course be adopted, then all additional costs, including advertisement and the embellishment of the product, may be deducted from gross revenue and an average net revenue curve may be constructed, the relationship of which to the cost of production curve as defined above will determine the position of maximum profit.

By definition, however, the firm as depicted has not taken advantage of this opportunity[3]. Either the entrepreneur was unaware of its possibility or he considered that its exploitation would encroach too deeply upon his leisure to be worth while. Let us now assume that by purchase, inheritance or conversion a new entrepreneur assumes control of the same business. Ignoring the effect of his different powers of co-ordination and different demand for income in terms of leisure upon the average cost of production curve (or

[1] *Theory of Monopolistic Competition*, pp. 117—125.

[2] "Law of Decreasing Costs," *Economic Journal*, 1931.

[3] The assumption as it stands is somewhat unrealistic ; if the firm is capable of profiting by advertisement it is extremely unlikely, as Shone (*op. cit.*) points out, that advertising expenditure will be zero, although it may very easily be less than the optimum for the reason given in the text.

assuming them to be the same as those of his predecessor in so far as they are devoted to physical production) let us follow the process of increasing the net revenue of the firm by means of advertisement.

Commencing at the original price, he will proceed to advertise his product and to alter its get-up to provide talking points for his salesmen, in the spirit of the Canadian firm which dyed coal blue and advertised it. At this original price it will be found that the excess of revenue above advertising expenditure will tend to diminish as the latter increases. Some point will inevitably be reached at which the profitability of spending money upon advertisement, *at that price*, will be at a maximum. But it may be found that if both price and advertising expenditure be changed a still more profitable position may be reached. The final position of maximum profit will depend upon the relation between the unit cost of producing different quantities of the product and the relative efficiency of advertisement at different prices. (For proof of this proposition see Shone, " Selling Costs," *Review of Economic Studies*, June, 1935, or my article " Discontinuous Cost Curves in Monopolistic Competition," *Quarterly Journal of Economics*, May, 1935.)

Now the way in which advertisement may vary in efficiency as prices change clearly depends in part upon the nature of the product, and in part upon the nature of the advertising. There are products for which advertisement would only commence to become effective after a change in price, there are products in the case of which a change in price might lessen or destroy the effect of advertisement. But, between these two extremes, there is a wide range of goods for which demand could more easily be stimulated if the price were to fall, or, conversely of which it would be possible to raise the price if demand could be stimulated. And over this range the advertiser has the choice between attempting to attach customers more firmly to himself (exemplified by the advertising of his own product) or to increase the popularity of the class of product (as exemplified by the policy of the Milk Marketing Board). The former method is extremely likely to provoke retaliation from competitors, the latter is less so. Either may be equally profitable, i.e., may enable the total net revenue of the firm (gross takings minus cost of advertising) to exceed the total cost of production by an equal amount. But in the former case the net revenue curve of the firm will tend to be inelastic compared with that in the second case. The first assumption to be made, therefore, is that a firm in an imperfect market may have the choice of two

advertising policies, both equally profitable in the short period, but resulting in conditions of demand of different elasticity.

III

If the result of these two policies, both of them by hypothesis, equally profitable to the firm, is to produce demand conditions of different elasticity, is it possible to compare the risks involved ? The concept of risk involves the possibility of measurement and the necessity of definition, in contra-distinction from uncertainty, about which, by definition, no theoretical conclusions can be reached. Risk is always " risk of something definite taking place." If it be assumed that the estimates of probable retaliation by rivals and the estimates of the effect of that retaliation, upon which the original advertising policies were based, were in both cases correct, this specific risk may be eliminated from our problem. Or if, as is more likely to have been the case, both policies were worked out on the basis of trial and error and positions of equilibrium finally achieved, the result would be the same.

There remains the risk of conditions of demand changing. If conditions of demand change as a result either of a change in the communal scale of preference, or of a change in the conditions of supply of some alternative commodity, relative preferences remaining unchanged, the risk involved is in each individual case a specific and, to a certain extent, a measurable one, but the number of hypotheses is infinite. Therefore, because the *relative* probability of each of these specific risks would have to be established before general risk from this source could be measured, the position remains one of pure uncertainty.

Is there any type of change in the conditions of demand of which the probability can be estimated and in relation to which the relative risks of different firms can be measured ? Clearly the general contractions of income connected with the trade cycle constitute a well-defined problem to all producers, of which the probability appears to be only too well established. But the effect of these periodical contractions upon the demand conditions of no two firms is identical, and it appears that the range of variation is wide. For our purpose, however, the field can be narrowed. In the first place it is probably only in the consumers' goods industries that the possibility of altering the conditions of demand by advertisement is very great : this eliminates those extreme fluctuations in demand for the output of firms

providing capital goods which derive from the lesser fluctuations in final incomes. Secondly, there are certain well marked tendencies in the distribution and expenditure of incomes during periods of depression which provide a clue to the nature of changes in demand for final products. Profits on the whole fall sharply, both in volume and in purchasing power. Wage rates fall much less sharply, and may increase in real value, but earnings on the whole are lessened, and, allowing for unemployment, their total volume tends to fall. But, as we have seen in the last depression, widespread impoverishment is not incompatible with increases in individual profits ; and in many cases the fall in retail prices is sufficiently great to leave the wage earner (should he be so fortunate as to have no unemployed relatives) a margin above his normal standards of expenditure with which to experiment. And the same is true of persons holding rights to fixed emoluments of any description (should they be so fortunate as to escape moratoria). But the purchasing power of the large number of persons who encounter unemployment will fall quite unequivocally, as will that of most persons whose income is derived from profits.

What is likely to be the combined effect upon the conditions of demand for advertised consumers goods ? Clearly, at any price, there will be less money to spend than before the depression. But there is no reason to suppose that the elasticity of demand will have changed very much. If demand for a product was very elastic before the depression the extreme sensitiveness to price changes which a reduced income invokes will not tend to lessen elasticity, while if demand was very inelastic before the depression there is no reason why lessened income available for expenditure should render it more elastic. It does not seem, therefore, that there is anything absurd about the assumption that the most likely effect of trade depression upon demand for advertised goods (or more generally for consumers' goods for which the market is imperfect) will be to lower the net revenue curve without altering its elasticity. Most people will have less money to spend upon any given commodity than before, a few will have more, and there does not seem any valid reason to suppose that the proportion between these two classes will differ very widely as between different income groups or between income groups of consumers addicted to the consumption of any specific product. It is important to recollect that the net revenue curves which we are considering do not represent the prices which different quantities will fetch or the quantities which will be demanded at different prices : they represent

the net yield per unit of different quantities of the product offered, in each case, at the optimum combination of price and advertising expenditure. Therefore, we need to assume that the combined effect of falling money income in most cases, and rising free margins in a minority of cases, will be to leave the relative efficiency of advertisement at different prices unchanged This follows from the general argument concerning conditions of demand: if the elasticity of lessened demand is unchanged it does not appear improbable that the relative power of advertisement at different prices will also remain unaltered.

But a fall in demand combined with unchanged elasticity may be defined in two ways. It may be said that *at any price* the elasticity of demand will be the same after demand has fallen, smaller quantities being purchased at all prices, or that for *any quantity offered* the elasticity of demand will be the same at lower prices. On the former definition the "fallen" demand curve is steeper at all points than the original one: on the latter definition, flatter. These two versions embody, however, a different "doctrine of the fall"! In the former case demand first diminishes at the existing price and subsequently exhibits a similar elasticity to that of the original curve. In the latter case the price of the commodity falls, demand not increasing at all, and subsequent changes in price invoke changes in the demand proportional to those on the original curve. Clearly the former definition of constant elasticity is the relevant one for our problem. The normal manner in which the producer of an advertised product becomes aware of changes in demand is that sales at existing prices fall off, and, if elasticity under the new conditions is unchanged, experiment soon informs him of the fact that demand at other prices has fallen correspondingly.

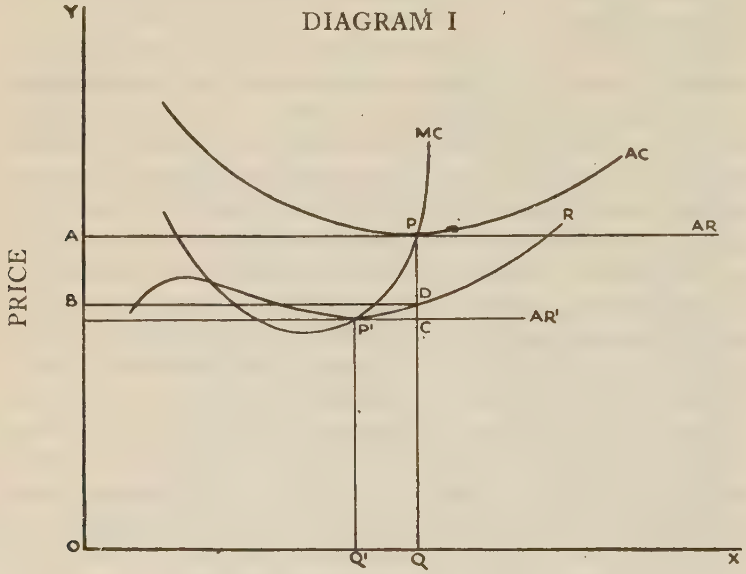
This is the second assumption upon which the latter sections of this article will be based: to wit, that the effect of trade depression upon the conditions of demand in an imperfect market will be to lower the net revenue curve without affecting its elasticity. It is not advanced as a necessary conclusion resulting from the ascertained facts of expenditure in depression, but as a hypothesis which they do not contradict.

IV

The third assumption is that the cost conditions of the firm do not change. This assumption, as it stands, is untrue to observed

facts : the costs of all firms (or nearly all) change as a result of trade depression, and change very differently in different industries. But, for the purpose of comparing the risks of a firm resulting from the adoption of alternative advertising policies, it is a quite legitimate assumption. It is thus possible to eliminate the difficulty of comparing the relative fall of costs and of demand by assuming the former to remain constant and concentrating our attention upon the effects of absolute movements on the part of the latter.

DIAGRAM I



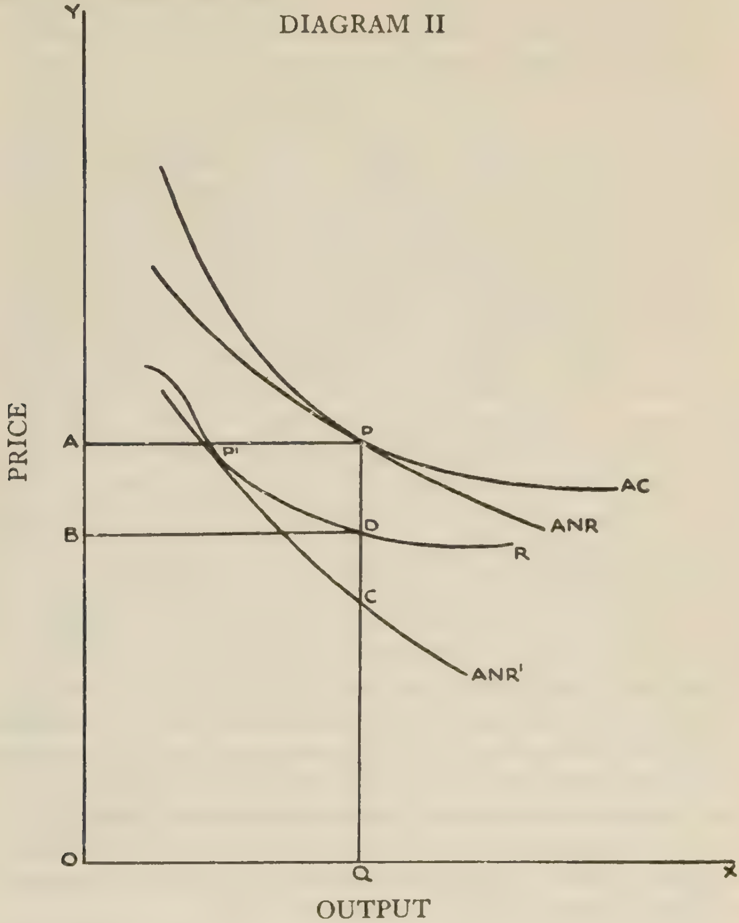
V

We are now in a position to employ our three assumptions in the task of measuring the increased risk which a firm undergoes when it seeks immediate profit by increasing the elasticity of demand for its product. Clearly the fundamental risk to which any firm is exposed is a risk of losing money. Let us therefore take a given sum of money as the criterion of loss, and consider how far trade depression may go in two comparable cases before this loss be incurred.

The risk of loss from changing conditions of demand is the inverse of the power of the firm to adapt itself to these conditions. Thus,

as we have assumed the conditions of supply to be given, the shape of the average cost curve will be one of the determinants of risk. The elasticity of the average cost curve will, of course, be different at different points. As we are considering the case of a firm of which

DIAGRAM II



the average cost curve remains unchanged and comparing alternative policies which result in two equally profitable adjustments of the net revenue curve (gross revenue minus advertising costs) to the cost of production curve, these two will relate, as they are assumed to be equally profitable, to two different points on the average cost of

production curve. Now, following our example in the original definition of the firm in equilibrium, and defining the profit which is included in the cost of production curve in the same way as we did in that case, it follows from the conditions of Section III (that a new position of stable equilibrium has been reached) that in the two cases the net revenue curves will be tangential to different points upon an identical average cost of production curve.

By definition the cost of production curve will not change during the process of contraction of demand. If therefore, as our index of risk we take the risk of losing a given sum, as the result of contracting demand, we can draw, relative to any average cost curve, a curve expressing the price per unit at which any output would have to be sold in order to incur that loss and no more. This is R in Dias. 1 and 2 : from any point on R a rectangle to AC (the average cost curve), OY, such as ABPD in both diagrams, will be of equal area and will represent the same monetary loss. Clearly the shape of R will depend upon the shape of AC and it will tend to be of the shape indicated in the diagrams. As demand falls, by hypothesis retaining its elasticity, it will move to the left if less than perfectly elastic and will either become tangential to R at some point, as in the diagrams, or it will cut R. If it cuts R then the risk of the firm losing the given sum vanishes, because some output could be sold, however far demand may fall, at a price above that which, for that output, would involve the given loss. If it becomes tangential to R the point of tangency indicates a position of minimum loss or maximum profit. Should it fall further the specified loss will be exceeded : if it does not, then any other output will clearly cause the specified loss to be exceeded. And, as we are measuring the risk of losing a specified sum as a result of trade depression, the fall in demand which has to take place before this loss is incurred determines the risk to the firm relative to that of other firms experiencing a similar diminution of demand. Therefore the further demand can fall off before the specified loss is experienced the lesser are the risks of the firm from this source.

Thus the elasticity of the average net revenue curve, ANR in Dia. 2 provides the other determinant of risk. In order, therefore, to determine the risks of the firm resulting from changes in the elasticity of demand we need to establish the relationship between changes in elasticity of demand and changes in the vulnerability of the firm to the rigors of trade depression.

VI

The adaptability of the firm to changes in demand as defined in Section III is determined partly by the elasticity of supply, partly by the elasticity of demand. The part played by elasticity of supply can be illustrated separately by considering what takes place under conditions of perfect competition. In Dia. 1 these conditions are depicted. If we wish to measure the risks to the firm of which the average cost curve is AC of losing a sum equal to APDB as the result of falling prices we draw R so that any rectangle from it to AC, OY, will be equal in area. As demand falls the most profitable output of the firm will, of course, be determined by the intersection of the marginal cost curve with the marginal revenue curve which is identical with the average revenue curve in a perfect market. As the point P^1, at which AR as it falls first becomes tangential to R, indicates a position of maximum profit, because any other output would increase the loss incurred, MC must cut both R and AR at P^1. The adaptability of the firm is determined by the relative elasticity of AC at output Q and output Q^1.

If the fall in demand had not been compensated for by any fall in supply at all, i.e., if the output of the firm had been fixed, then the fall in price for the original output would have been sufficient to cause the given loss to be incurred when it had fallen to OB. But, as it was possible to contract supply, it was possible for demand to fall further before the loss was made, the firm retreating to smaller and relatively more profitable outputs. In Dia. 1 DC gives us the extent to which it was possible for demand to fall, as a result of the elasticity of supply, over and above the fall which would have caused the given loss to be incurred had supply been inelastic. PC gives us the fall in the price which will be obtained for the original output after demand has fallen so far that the most profitable adjustment of output to falling demand incurs the given loss. Therefore, as a formula for the adaptability of the firm we may write $1 - \frac{PD}{PC}$. The lower the price which the original output would fetch after adjustment to lessened demand, compared with the fall in price which would involve the given loss if output were unchanged, the greater the adaptability of the firm. Under conditions of perfect competition, as the price at which any output will be sold is the same at any one time, the elasticity of supply is the sole determinant of adaptability. If the

output of the firm could not be changed, then obviously PD would equal PC and our formula would give us $1 - \frac{1}{1}$, or zero.

When demand is also elastic the effect of elasticity of demand must be included. This position is illustrated in Dia. 2, the notation of which is identical with that of Dia. 1, except for the fact in place of an average revenue curve the conditions of demand are denoted by ANR, an average net revenue curve measuring the surplus of average gross revenue above average advertising expenditure for each quantity sold. As will become evident from inspection of Dia. 2 the lesser the elasticity of demand the further demand can fall before the given loss is incurred, measuring the fall in demand as before, by the price (or rather net yield) which the original output would fetch. Thus PC measures the fall in price which would take place if the original output were offered after demand had fallen until ANR became tangential to R ; PD, the fall in price which would take place before the given loss was made if supply were inelastic and demand were perfectly elastic. The index of adaptability $1 - \frac{PD}{PC}$, is greater, owing to the fact that PD is smaller proportionately to PC. It is now apparent that the relative elasticities of supply and of demand have conflicting effects upon the adaptability of the firm. It is clear from Dia. 1 that the more slowly the elasticity of supply decreases as output diminishes the greater the adaptability of the firm. It also follows, as may be seen from Dia. 2, that the more rapidly the elasticity of demand decreases as smaller quantities are offered the greater the adaptability of the firm. If in Dia. 2, elasticity of demand remaining unchanged, the elasticity of supply declined more slowly to the left of P (AC rose more slowly), it is obvious that PC would increase while PD remained the same. Adaptability to falling demand as defined in Section III therefore varies inversely with the rate at which the elasticity of AC diminishes to the left of the original position of equilibrium, directly, with the rate at which the elasticity of ANR diminishes in the same direction. Therefore adaptability depends upon the excess of the elasticity of demand at the original price over elasticity of demand at the price at which the given loss is first made, minus the excess of elasticity of supply at the original price over the elasticity of supply at the output at which the given loss is first made. For this we may

write (e.D — e.d) — (e.S — e.s). The contents of both brackets will normally be positive.

VII

It is now possible to apply this analysis to our original problem. If a firm succeeds in increasing its revenue by means of an advertising policy which increases but renders more elastic the demand for its product it increases its risk of losing any specified sum by the extent to which it causes elasticity of demand to increase relatively to the elasticity of supply. If it is possible to choose between two equally profitable advertising policies resulting in demand conditions of different elasticity, the position may be depicted by means of two average net revenue curves tangential to different points upon an identical average cost curve. In each case the elasticity of demand and supply will be identical at the point of tangency. As the point of tangency of the more elastic revenue curve will lie to the right of the less elastic one, it follows that the elasticity of supply is lessened as we move to the left. Now unless the decrease in the elasticity of supply between the points of tangency of the more and the less elastic revenue curves is greater than the decrease in the elasticity of demand over a similar length of the more elastic revenue curve (measured from left to right) the adaptability of the firm with the less elastic revenue curve is the greater. This will tend to be the case if there are no discontinuities in the conditions of demand or supply.

In any particular instance the analysis of Section VI must be applied, and the firm for which $1 - \dfrac{PD}{PC}$ is the lesser will carry the greater risk of loss from trade depression, because it will incur the loss of any specified sum sooner. The three assumptions upon which this conclusion is based are, of course, too strict to be frequently encountered : the third, which is the most important, is the most hypothetical. But, for the reasons advanced in Section III, they do not appear altogether unreal, and they may combine to provide an indication of the fate likely to overtake the firm which has been expanding by means of widespread advertising and has been overtaken by a trade depression. They may also help to explain the remarkable tenacity of life which so many of the smaller firms in the consumers' goods industries continue to enjoy in face of cyclical fluctuations.

HENRY SMITH.

Workers in a Lancashire Factory at the Beginning of the Nineteenth Century

One of the most notable enterprises in the early cotton industry of Lancashire was that of Peel, Yates and Peel, of Bury. It was notable not only because of the extent of its activities, but also because it was the source of a fortune which enabled a family of industrialists to enter the ranks of the landed gentry and to play a leading part in the political life of nineteenth-century England. The story of the firm has been told by the biographers of the Peels, and it is unnecessary for the purpose of this article[1] to give more than a sketch of its beginnings and early progress.

In 1772 Robert Peel, the son of a calico printer of Blackburn, oined the staff of a print works at Bury which had been set up by his uncle, William Haworth, in partnership with a man named Yates, in the late seventeen-sixties. Within a year the firm added to the process of printing the spinning of yarn and the manufacture of cloth. A small factory, equipped with hand jennies, was established in Butcher's Lane, and before long the firm had acquired two mills, driven by water power, one at Hinds and one at Radcliffe, and was employing weavers who worked in their own homes in many towns and villages of north and south-east Lancashire. The print works itself was continuously enlarged ; in 1783 new premises were built at Ramsbottom, and within the next few years four more mills were acquired. The profits of all these undertakings were considerable, for Robert Peel was able to present the Exchequer with a considerable sum of money as a contribution to the expenses of the war, and in 1800 he was made a baronet.

So much is well known. What has not been told before is the story of the workers who made this development possible. A wages book, preserved at Chetham's Library in Manchester, gives a glimpse of the circumstances of one little group of these ; and it is probable that the 136 wage earners to which it refers can be considered as repre-

[1]A further article based upon the material mentioned below will be published in the next issue of *The Manchester School.*

sentative of the workers in the five other spinning factories in which the firm of Peel, Yates and Peel produced yarn for their calico.

The entries in the wages book begin in November, 1800, and finish in January, 1803. If the wage-earning labour had constituted the whole of the employees at Burrs Mill, the factory would have been very small. It is probable, however, that wage-earners were only a small part of the total labour and that the rest consisted of pauper apprentices who received food, clothing and lodging in return for their labour. There does not seem any possibility of estimating the number of these apprentices; but, from the importance Sir Robert Peel attached to their labour, it is clear that the cotton industry in Bury was largely dependent on them at this time, and that free labour formed only a small proportion of the labour employed in his mills. This is a matter on which he laid repeated emphasis when giving evidence before the Committee on the State of Children employed in Factories, in 1816.

In the wages book, each family has a double page. On one page the earnings of each member are entered separately for each fortnight, with a note stating whether the worker was engaged on day or piece work, the number of days worked, and the total earnings of the family. On the other page the workers are debited with their liabilities to the firm. Sometimes these debts swallowed up the entire income; sometimes the earnings were not sufficient to meet the debts; but as a rule there was an amount to be handed over in cash.

The debits consisted of purchases made apparently at a shop kept by the firm; of rent, when the employee lived in one of the firm's cottages (and 19 of the 25 families did so), and of instalments paid to shopkeepers for goods obtained on credit. This method of paying wages enables us to see how the families whose working members were employed at the factory spent their income.

The following extract illustrates the method used:

May 8th, 1802.

Brooks[1]	£	s.	d.		£	s.	d.
Samuel, 12 days ..	1	8	0	Cash		3	11
Robert, 12¾ ,, ..		15	11	Shop Goods	1	18	2½
Squire, 12¾ ,, ..		8	6	Rent		2	6
Rachel, 12 ,, ..		10	0	Cash		3	0
James, 12¾ ,, ..		5	4	Cash		4	0
Ann, Spinning ..	1	2	6½	Mr. Haworth		10	0
Peggy, ,, ...		16	1	Cash	3	4	11
Alice, Cotton Picking ..	1	0	1½				
	£6	6	6		£6	6	6

[1]This family enjoyed a larger income than any other family employed in the mill. Its average weekly income for 1802 was £2 8s. 1½d.

In addition to the items of rent, shop goods, and cash which appear every fortnight, and the instalments paid for goods on credit, which appear frequently, there are a few payments towards a funeral club. Occasional debits are also made for coal, meat and potatoes, cloth, paint and sheets, and several of the women had money deducted for " bedgowns." It is clear that the operators were dependent upon their employer for the supply of house room, food, and in many cases, fuel and clothing.

As is well known, the truck system, under which employment and buying at the works' shop were linked together, led to grave abuses, for the employer was in the enviable position of a shopkeeper whose customers had no alternative source of supply, and the profits that could be made by this form of extortion proved a temptation to many small manufacturers in the industry.

It is hardly credible, however, that a firm of the size of Peel, Yates and Peel in 1801-2 would trouble with the minute details of retail shopkeeping unless there was a better reason for it than the profits that could be made. The firm's establishments were spread over a wide area, miles away from one another. The principal concern was the print works and bleaching ground, which were near what is now the centre of Bury, and where so many houses were erected that a small colony was formed on the outskirts of what was then the town. The workers here had access to ordinary retail shops, and there is no evidence that the firm supplied any of the needs of the workers at the print works apart from the provision of houses. The spinning mills, however, were a considerable distance from the print works; Burrs Mill was a mile and a half from the centre of the town, and with the mill running night and day, and a minimum working day of twelve hours exclusive of meal[1] times, the operatives would hardly have the opportunity, or probably the desire, to walk three miles to do their shopping. The firm thus satisfied a real need when it set up a shop for its workers.

The greater part of the wage labour employed at Burrs Mill was paid on a time-rate basis. The rate of pay for women and girls varied from 4d. to 1s. 6d. a day, but few women received more than 1s. 2d., and those who did were probably in a position of responsibility. The boys and men earned from 4d. to 3s. 4d. a day and the fewness of adult male workers suggests that the men employed, with the exception of " rovers," were the joiners and mechanics necessary for the running

[1]Evidence of Sir Robert Peel. Committee on State of Children employed in Factories, 1816.

and repair of machinery. Indeed, employment at Burrs Mill must have been a blind alley occupation for boys : several of them who evidently reached their maximum wage during the years covered by the wage book left the mill, presumably to seek work with better prospects.

A glance at the earnings of the day workers over a period shows that nearly all the hands received increases of pay at intervals until they reached the maximum for their class of work, and contracts made between parents and the firm show that the usual arrangement was for young workers to receive increases of sixpence a week every six months. The following entry, dated December 1st, 1801, is typical of many :

> John Chadwick engages his children to work at Burrs Mill 11 months as under :
>
> Robert 5s. a week 6 months, and 5 months 5s. 6d.
>
> Susan 5s. 6d. a week 6 months, and 5 months 6s.
>
> Sally 4s. a week 11 months.
>
> Edward 2s. 6d. a week 11 months.

Cotton picking, roving and spinning were paid by the piece. There was little difference in the earnings of women employed in picking : the wages of six women, chosen at random, averaged over six months, ranged from 8s. 3d. to 8s. 8d. a week. The price paid for rovings was 1s. 2d. per 100 lb., and the weekly wage of men working steadily averaged about 14s. 6d. The earnings of spinners varied considerably : the less expert, who alternated their spinning with day work earned about 6s. 9d. a week when spinning and 6s. 6d. or 7s. when on day work : whole time spinners earned, taking an average of six months, the lowest 9s. 6d., the highest 12s.

As mentioned before, the accounts were made up in a way that enabled the income from the mill going to each family to be calculated without difficulty. This income depended, of course, upon the number and age of workers in the family and the work upon which each was engaged. The following table shows the income of five families, each of which had the same number of workers in the mill, during the six months January to June, 1801 :

Family	No. of Workers	Age and Sex of Workers	Occupation	Average Weekly Income
				£ s. d.
Brierley	5	Man, youth, girl, two women	1 Batter 2 Day workers 2 Spinners	1 15 9
Crossley	5	Three women, youth, boy	1 Cotton picker 2 Day workers 2 Spinners	1 18 0
Pollitt	5	Man, woman, girl, two boys	All on day work	1 7 10
Barlow	5	Three women, two girls	1 Cotton picker 2 Day workers 2 Spinners	1 14 0
Wood	5	Two women, youth, two boys	1 Cotton picker 4 Day workers	1 3 11

It would be interesting to know the type of work performed for these wages but, apart from batting, roving, and spinning, there is no mention of the processes on which the operatives were engaged. However, as it is practically certain that the mill was stocked with Arkwright's machinery which was driven by water power, all the day workers, with the exception of children employed as bobbin doffers, must have been occupied in the carding and slubbing rooms.

Frances Collier.

Mr. Keynes on Employment and Output[1]

THIS is a book likely to bring forth even more discussion and controversy than did the *Treatise on Money*, whose argument, as Mr. Keynes points out, finds a logical extension here. Apart from some questions of definition and some refinements of argument (which merit consideration and demand reflection), the outlines of this work stand out boldly, so that Mr. Keynes's main position may be delineated. Of the income of a community there is a disposition to consume a certain portion only, the remaining income finding a use as capital. But income will only find a use as capital if its earnings as capital are deemed sufficient to remunerate the investor. In a community at any time, the amount of investment which can be expected to yield at least a given rate of interest is limited. Hence at a given rate of interest, the income that can be invested is limited ; and if out of a given income there is a disposition to consume only some more or less fixed portion, the size of that income will be limited at any given rate of interest by the investment that is deemed remunerative and the proportion of income that is not consumed. Given the disposition to consume income, the size of income is determined by the amount of investment.

At some rate of interest (possibly a zero or even a negative rate) investment can be as large as one wants and income, therefore, may be made as great as is possible. But in order that investments will be made the return or rate of interest must satisfy the investor, who will demand compensation for parting with a liquid asset, money, in exchange for a less liquid asset, a house or security. Hence unlimited possibilities for investment at low rates of interest may never be explored because of the impossibility of financing those investments which promise a low yield. The liquidity-preferences of potential investors set a limit to the quantity of investment by setting a limit to the return acceptable. The factor of liquidity-preference which governs the cost of financing investment determines the volume of profitable investment, and so, determining the amount of investment that will be undertaken, determines, in conjunction with the propensity to consume, the size of total income. If, on top of a given volume of investment that makes

[1] *The General Theory of Employment Interest and Money*. By John Maynard Keynes. (London : Macmillan. 1936. pp 403. 5s. net.)

possible a given income, a little additional investment is made, then, if resources are available, the total income will be increased not simply by the additional capital goods made, but also by an appropriate amount of consumption goods to make together a total additional income out of which people will choose to consume those additional consumption goods. Hence one identifies a secondary source of additional income and employment, which as ratios to the primary (investment) income and employment are given by Mr. Kahn's " multipliers."

Liquidity-preference is not a constant deterrent to the financing of industry since the desire for liquidity may be satisfied by the holding of money and so by the creation of money, with a consequent lowering of interest rates. The banking system, therefore, may lower interest rates by increasing the volume of money and so increase the volume of possible and profitable investment together with total income. But according to Mr. Keynes, there is likely to be a limit to the reduction in interest rates that the banking system can bring about. For, as interest rates fall, the advantage of investing rather than holding cash is reduced, and increased liquidity will fail to induce investment that is so badly remunerated. This is a psychological minimum below which rates will not fall. If this is so, the volume of possible investment may be less than is necessary to secure full employment.

It is a position such as this that Mr. Keynes envisages as no remote possibility. Although, as Mr. Keynes tells us, this book is written for economists, and is avowedly an exposition of defects of neo-Classical analysis and a contribution to a general theory of output and employment, it is also a pamphlet (although a very substantial one at a price for which we are very grateful to Mr. Keynes and his publishers) which has implicitly and explicitly something to say about the difficulties of our times. Thus, we are told that in a generation or two the rate of interest (on loans of unspecified duration) probably ought to fall to zero, and, in his business capacity, Mr. Keynes has said that today the rate of interest must be kept low and, if possible, reduced still further. Although this work might conceivably be written around a hypothetical situation, its urgent advocacy of these ideas lead one to believe that Mr. Keynes considers himself to be disclosing the causes of our recent difficulties. No doubt Mr. Keynes expects the economists who read this book to make the necessary qualifications to the solution he suggests. But, unfortunately, in a quasi-mathematical treatise of this kind, the reservations and qualifications tend to be overlooked to leave unmarred the beautiful simplicity of the main argument. And

the argument itself may be used as a brief for the advocacy of policy. I feel that such a conclusion would be premature and unfortunate.

In this connection, one must mention the appearance of an ambiguity in this work. In constructing a theory of employment, Mr. Keynes is apparently writing of a long-term condition—a persistent deficiency of investment due to a chronic and persistent tendency to " high " interest rates that inhibit enterprise. His proposed treatment of this disharmony is reminiscent of proposals for lifting an economy out of the depression phase of a trade cycle. " Investment " must be stimulated by state spending ; and as production increases prices will rise under the influence of diminishing returns. Thus, as employment increases, profits and prices must rise, generating a situation which has many of the characteristics of recovery. This recovery movement must be pushed far enough to permit the absorption of unemployed factors. Evidently, therefore, Mr. Keynes is raising a difficult problem of monetary management for which he provides no solution. So long as production is increased as costs and prices rise, Mr. Keynes forbears to give the name inflation to the movement, but it is clear that the system may be violently out of control before inflation, so defined, makes its appearance. The recovery movement will differ very little from the upswing of the trade cycle. With this view, Mr. Keynes is apparently in agreement, for he writes of continuing quasi-boom conditions by maintaining low interest rates at times when central bankers are thinking of raising them. One suspects, therefore, that two quite different troubles are being confused—the problem of long term unemployment, which, whether or not traceable to the causes Mr. Keynes suggests, seems hardly likely to be cured by simulating conditions of boom, and the problem of short term unemployment, which seems likely to be solved in the near future by circumstances to which one can give what name one pleases. If persistent unemployment can only be removed by inviting the danger of a violent upward movement of prices, we ought surely to take most careful stock of the reasons for unemployment's resistance to the buoyant effects of a less dangerous phase of recovery.

Mr. Keynes's analysis is the more easily accepted by reason of our memories of prolonged depression. In depression, one feels certain that the schedule of the " marginal efficiency " of capital is low, and that the desire for liquidity is urgent, so that the opportunities for investment may be very restricted. Mr. Keynes has prepared us to accept such conclusions, which are the academic basis for policies of public

work at these times. And, no doubt, the upswing from depression is characterised by a liquidation of the highly nervous condition which demands liquidity, and by a revision of expectations that lifts the demand schedule for capital. But is there any reason to expect that over a period of years liquidity preferences of individual owners of cash reserves will be too great to allow the financing of industry to an extent necessary to find employment for all our resources ? Is there any reason to expect that the propensity to consume is so weak that resources cannot be utilised ? On these points, Mr. Keynes is unconvincing : at bottom he asserts these difficulties and does not prove them. They cannot be proved, nor can they be refuted. For my own part, I do not find the meaning of these assertions as clear as Mr. Keynes apparently does. Surely the dispositions to enterprise, to consume and to remain liquid are all highly variable, while their variations constitute trade cycle phenomena. The average of these dispositions, or if one likes the equilibrium level of the dispositions, is conditioned by their variations, and one cannot say what that average or level would be in the absence of variations. Indeed, it becomes doubtful whether one can identify a long term level. But these points may be considered. The disposition to consume cannot be regarded as independent of the profitability of saving to the individual. Today, at any rate, people do not save to be liquid ; they save with an eye to the possibility of remunerative investment. Liquidity is not necessarily something that is desired, but rather something that conditions may necessitate. Avenues of expenditure are coming to be more and more attractive, and may quite conceivably tempt us to spend a greater proportion of our incomes as investment becomes less attractive. Arguing upon Mr. Keynes's premises, thrift may be a tradition persisting from the peculiar conditions of the Victorian era. There is no reason to suppose that tradition to be imperishable when those peculiar conditions, as Mr. Keynes suggests, have themselves perished. And in the short run, too, the economic system may be more adaptable than is suggested. Given the liquidity preferences of individuals, surely the rate of interest, at a given price level, is a function of the distribution of cash reserves as well as of their magnitude. As the cash balances of potential investors are built up, the rate of interest they will be prepared to accept will fall, unless there is a scramble for cash (e.g., by a sale of securities) on the part of those whose liquidity is being destroyed. I do not see why such a scramble should be assumed.

Again, the desire for liquidity may be over emphasised. As Mr. Keynes points out, a low yield on securities makes more likely a net loss on the holding of securities as a result of fluctuations in the rate of interest. But I cannot think that the average non-corporate investor is very much deterred from investment by the possibility of capital depreciation that is occasioned by normal variations in the rate of interest. He will take as little notice of fluctuations around $2\frac{1}{2}$ per cent. as of fluctuations around $4\frac{1}{2}$ per cent. The chances of appreciation will usually appear roughly equal to the chances of depreciation, and the capital gain or loss is seen as something distinct—a windfall—from the running yield. Of course, if the investor considers that the rate is being kept artificially low, and if he expects that sooner or later the rate will move from around $2\frac{1}{2}$ to around $3\frac{1}{2}$ per cent., he is not likely wilfully to court capital depreciation by investing. But that is entirely another problem. Corporate investors are no doubt much more sensitive to running yields low in comparison with the possibilities of capital depreciation. But in their case, it is surely true that in the absence of a definite view on the course of interest rates, the pressure upon them to use money remuneratively will force them to face the risk. And if one is prepared to take a sufficiently long view, the risk is relatively small in comparison with the running yield over a long period. Yet in certain circumstances this factor may be important. But the difficulties are not insuperable, and one may expect that the market and the government are not incapable of adapting their operations and issues to a permanently lower level of interest rates. If these lower interest rates are to be permanent, one may expect adaptation to them with a considerable ultimate gain to the financing of enterprise.

Again, that the yield on investment is likely to fall is itself a large assumption for which many will see little justification. Are the forces which make opportunities for investment losing potency? Changes in technique are still coming forward with undiminished frequency and demand is becoming unmistakably more fickle. *A priori*, one would think that the opportunities for investment increase with income and not decrease with time.

These assumptions seem rather insecure foundations on which to base such radical proposals as Mr. Keynes suggests. He would wish for a consistent policy of state spending to supplement business investment, and for the taxation of cash holdings to reduce the attractions of liquidity. Such proposals must be looked at from many angles

before they can be supported: in the end they may prove to be incompatible with many things that Mr. Keynes holds valuable. Even if Mr. Keynes is substantially correct, there are many things which could be done to promote investment. An era of low interest rates may force an alteration of banking practice which we might accelerate. It may eventually be necessary for the banking system to charge for maintaining an account instead of paying for the privilege of keeping it. The reasons for the present practice are probably largely historical. In the second place, investment would be promoted by giving the investor greater confidence in his investments. There are many reforms of the Companies Act which are overdue. In the third place, the charges on security transactions constitute a considerable impediment to the financing of industry. While, finally, there are possibilities for investment which cannot be taken advantage of in the present paralysis of international trade. It is early to adopt a defeatist attitude towards the possibilities for international trade and international lending. Such alterations, together with an adaptation of the capital market to new conditions—should these be permanent—might go a long way towards a solution such as Mr. Keynes thinks necessary. In any case, they are measures which are unlikely to do much harm.

It will be seen that Mr. Keynes has succeeded in one of his tasks—to force new ideas to the point of open discussion. That equilibrium with full employment in any economic system may be difficult to secure is an idea which many people will accept, in part as a result of those challenging views of Mr. Keynes to which this work must now be added.

JACK STAFFORD

U.S.S.R. Economics—A Reply

PROFESSOR Polanyi's paper—*U.S.S.R. Economics : Fundamental Data, System and Spirit*[1]—calls for careful consideration, as much because of the authority of the writer, as for the range of his enquiry. It is especially welcome because of the dearth of such accounts (in English) of the Soviet experiment as will stand the test demanded by the serious student. To the present writer the Professor's statement of Soviet economics seems to require considerable revision, but there can be no doubt regarding his scientific approach to the subject.

There is need to remind those who are being introduced to economic conditions in Russia, that the expansion of industry is being pushed forward with the utmost possible vigour, as if the country were passing through a phase of extreme emergency in which every day counted. Whereas, say in England, the statistics of industrial production for the year 1933 could be regarded as fairly representative of our modern phase, the corresponding data for the same year in the U.S.S.R. would be quite unsuitable as evidence of the industrial position in that country in more recent time. Most of the figures of production employed by Professor Polanyi are for 1933 and earlier years, as they were the most recent available to him.

The paper is an estimate of the degree of success which has attended the efforts of the State Planning Commission, the authority responsible for the First Five Year Plan. When achievement fails to reach expectations, the deficiencies are strongly emphasised, though it would not be easy for the reader to discover to what extent and in what fields, expectations have been fully realised. Basing his estimate on the same materials to which the Professor had access, another writer might occasionally come to a different conclusion. It is not a question of the opinion of one authority differing from that of another : the facts are there to speak for themselves. It will be convenient to deal, in turn, with various points, in the order in which they are raised in the paper. First, a terminological matter of some importance. On page 68 and elsewhere, apparently the term " state farm " is used when " collective " (kolkhoz) seems to have been intended. There is a real distinction. The " state farm " is administered directly by the State, and both it and the entire output from it are State property, while the workers on

[1] Published in Vol. VI. No. 2 of this journal and since re-issued by the Manchester University Press.

it are employed as wage labourers. The farmers of the "collective" are co-operative owner-producers, sharing in the product of their labour, and it is they who, by their numbers, dominate Russian agriculture today.

Under "Food" (p. 69), in reference to the failure of Russia to meet by sufficiently increased food supply the rise of population in the years 1917-1931, there is omission of the consideration that, as a direct consequence of the Great War, Russia lost some of her richest farming provinces, including Bessarabia, and that the passage of hostile armies over much of the most fertile soil which remained to her, e.g., the Ukraine, was not calculated to encourage agriculture in those parts. Again (p. 69), there is mention of the decline in numbers of live stock during the post-war years, which can only be intended as criticism of a régime under which there has been not economic advance but retrogression. Yet, surely, it is well known that it was the western lands now lost to Russia—Finland, Esthonia, Latvia, Russian Poland and Bessarabia—which made the leading contribution to the stock-rearing industries of Tsarist Russia. But leaving this aside, it might have been mentioned that the production of horned cattle, sheep and pigs was greater in each case in 1929 than in the Tsarist year 1916, which is chosen for comparison.

Throughout, there is a tendency to neglect the wide variation in environmental conditions of soil and climate within the regions of the European and Asiatic parts of the U.S.S.R. I venture to say that any investigation of economic conditions in Russia, or any other country, which does not take account of the underlying factors of physical and economic geography can have very little reality. Associated with this criticism is the view that there can be no useful purpose in comparing the U.S.A. and the European part of the U.S.S.R. with each other, from the agricultural standpoint (p. 84) unless it can be shown that there is approximate parity of natural resources. The vital point in such a comparison is that in the U.S.A., the area of naturally fertile land with a growing season of seven or eight months and a rainfall of over 20 inches, is much larger than in European Russia. The export of cotton from the U.S.A. is mentioned (p. 84) as if it were a phenomenon that Russia should be able to repeat, but under the most perfected of economic systems, there could be no hope that the dry plains of Russian Turkestan would ever rival the cotton output of the Mississippi " bottom lands." If necessary to make comparison between European Russia and another continental region (under

capitalism) let Canada be selected, for there the geographical conditions are, to some extent, repeated.

On pp. 73-75 there is an analysis of the income of the Russian factory worker in terms of English currency, and the figure of 52s. 6d. is estimated to be the monthly wage. It might be added that the Russian worker receives a number of services which take the place of money wages and for which the English factory hand has no equivalent ; e.g., free passes to theatres, concerts and " parks of culture and rest," or extremely low rates of admission to these entertainments. The medical services offered to the Russian, including sanatorium treatment, and to his family—clinics, nursery schools, etc.—are on a very much more generous scale than in this country, and must be counted in when trying to strike a balance between the wage rates in Russia and Western countries.

On pages 79-81 there is much severe criticism of the claim, made by the U.S.S.R., that they have succeeded in their " Planned Economy." Other observers are impressed by the fact that, for the first time in history, a government has surveyed and assessed the economic possibilities of the regions that lie within its frontiers, with the set purpose of planning that each region shall make to the full such contribution to the economic development of the country as a whole as it is fitted to do by reason of its natural endowment. Whether or not the planning has been in all respects satisfactory seems to me less important than the establishment of a new principle of government.

Page 83 lays emphasis on the alleged poverty of the transport system of the U.S.S.R. and again comparison with the U.S.A. is offered. Taking another approach I am impressed by the rapid expansion of the road, railway and canal systems of Russia since the Revolution. Is it not worthy of notice that today the length of railway track is twice that for the year 1913 ? It is not advisable to state that " the country is practically roadless " when during the space of the First Five Year Plan more than 6,500 miles of well-surfaced roads were completed. I should have expected commercial aviation to be mentioned, inasmuch as the system of airways covering the U.S.S.R. exceeds, in mileage, that of any country in the world. The Government is striving to compensate the country for the natural obstacle to railway and road construction associated with enormous distances by the widespread development of an airways net, and in view of the success of this venture there are those who believe that railway building is on the point of being out-moded.

A final note is reserved for the reflection that Professor Polanyi attaches little importance to the potency of the communist ideal where social behaviour is concerned, but rather emphasises the motive of personal gain, as the real stimulant to economic achievement. Here we are dealing with the power of ideas—of the new Russian religion—and difference of opinion between observers is to be expected. Perhaps the best remembered feature of my recent Russian visit was the conviction, noted on every hand, that Russia is at the beginning of a new era of civilisation in which humanity as a whole will ultimately share, and in which private profit-making dependent on the exploitation of human labour, will be regarded as an anti-social activity, just as robbery is so regarded today. Contrast with this our own lack of confidence in the permanence of our Western civilisation, our doubts as to the virtue of the principles on which that civilisation is based, and our content merely to hold on, if possible, to those remnants of our order which the Great War left to us.

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Reviews

Wages and Labour in Cotton Spinning. By John Jewkes and E. M. Gray. (Manchester : The University Press. 1935. 8s. 6d. net.)

Whatever the general level of wages, it will be very generally agreed that relative wage-rates should bear some relation to the quantity of " work " performed. Here economist and practical man, even employer and employed, are on the whole at one ; the demand for " fair " wages goes along very well with the economist's principle of marginal productivity. It is of course true that when the principle comes to be applied to wholly different occupations, it loses much of its cogency ; for the methods by which the economist would compare the marginal productivities of wholly different workers are too remote to appear practically urgent. But there are other applications of the principle which are more obvious, though hardly less difficult to carry out.

One of these is the desirability of paying different wages to the same man, when the effort (the useful effort) which he puts into his work varies. This problem is solved neither by simple time-rates nor by simple piece-rates. Time-rates leave the wage unassociated with effort, and consequently encourage the employer to " drive " the operative. Piece-rates impute to the worker all variations in output, while many variations are not due to him, but to the equipment with which he works. This defect of piece-rates is particularly evident in cotton spinning, where the rate of output is mainly dictated by the machine.

The authors of this admirable book show with great clarity, that the extreme and baffling complexity of the cotton " lists " is to be attributed, on the one hand, to the urgency of this problem under the peculiar technical conditions of cotton spinning, and on the other, to the great (perhaps too great) ingenuity with which cotton men set themselves to solve it. Neither straight time-rates nor straight piece-rates suited the industry ; the wage-system tended therefore in the direction of a complex compromise, in which a very large number of changes in the type of work were separately listed, and the wage adjustments appropriate to each separately laid down.

Such is the complexity of the system that no previous inquiry had

succeeded in making sense of it ; but in the present book that does seem to have been done. The authors have mastered the lists, and they have made them intelligible. But in so doing, they have disclosed a disturbing situation. They have found, too often, that the system has become strangled in its own complexity ; lost in a maze of detail, the principles, without which the details are senseless, have disappeared from sight.

Of the existing lists, it is true that the Oldham list gets high marks. It is a "uniform earnings list.... The operative is safeguarded against the danger that his earnings will be low because of inefficient machinery.... The Oldham system encourages the employer to adopt as quickly as possible the most efficient machinery, for this cuts his labour costs." Thus this list does succeed in achieving, very fairly well, what it is the clear object of the lists to achieve.

But the other lists have none of these merits. The Bolton list, in particular, fails dismally. It is, at the critical point, a straight piece system, and thus penalises the worker for bad machinery. Further, when it is applied to modern technical conditions, it deprives the employer of any incentive to technical improvement.

These defects of the Bolton list are traced, in part, to misfortune at the date of its adoption (1887) and in part to the fact that it has never been revised since then. It is true that it has proved so inefficient as to break down over a considerable part of the field which it once covered. But it is still a very important list, and its inefficiency is doubly serious, since it affects that part of the industry where Lancashire's comparative advantage is greatest.

There is another kind of unfairness which should be avoided by a good wage system. A man has a right to expect that, as he advances in years and skill, his remuneration should generally bear some relation to the increase in his productive capacity. Now the type of wage-system, and the type of division of labour, which are needed to satisfy this test, are very different in an expanding industry, and in a stationary or declining one. Mule spinning has passed from the first to the second phase, but its organisation from this point of view remains unchanged. Consequently there emerges the problem of the big piecer, earning a wage which would be reasonable enough as a temporary stage on the way to full earnings, but grossly unfair when the prospects of preferment are largely barred. This is perhaps the greatest labour problem of the spinning industry ; the thorough and dispassionate analysis of it given here cannot fail to be widely useful.

In conclusion, I should like to offer one minor criticism. In a note at the beginning of the book, a reader, " not especially interested in technical details," is advised to omit Chapters V–IX. He will be most unlucky if he takes this advice.

J.R.H.

Problems of Vocational Guidance. International Labour Office: Studies and Reports, Series J (Education), No. 4. (Geneva. 1935. P.S. King. 5s. net.)

The problems of vocational guidance have occupied the attention of workers in education, psychology, sociology, economics, and industry. A specialist in any field is apt to overlook or to minimise the importance of contributions from other sources and it is accordingly not surprising that many of the existing studies on vocational guidance emphasise particular features of the problem and lack the wider outlook which this subject needs. The report from the International Labour Office gives an able and balanced survey of the educational, social, and economic aspects of vocational guidance and consequently serves a useful purpose. It should be read by all who are attempting to bridge the gap which separates school from work.

The collective nature of the task is repeatedly emphasised, and the duties of the teacher, psychologist, doctor, and vocational adviser are considered in some detail. A particularly useful section is that which deals with the methods used in vocational guidance, and most people will agree with the conclusion that " While the test method may justly be looked upon as a highly practical way of measuring sensory functions, attention or memory, regarded as a method of analysing the whole human personality and discovering individual aptitudes and characteristics, it calls for considerable reservations " (p. 92).

Finally, an important feature of the report is the concise survey of the situation in different European countries and in the United States. Although much progress has been made there is obviously plenty of scope for co-ordinated research not only on a national but also on an international plane.

The Appendix is a lengthy and important part of the Report and contains useful specimens of record cards used in Great Britain, France, Austria, and the United States, together with a selected bibliography of recent publications dealing with vocational guidance.

T.W.

The Lancashire Cotton Famine, 1861—1865. By W. O. Henderson. (Manchester University Press. 1934. Pp. 178. 8s. 6d. net.)

This valuable study does much to fill in one of the innumerable gaps in our knowledge of English economic development in the second half of the nineteenth century. It is true that some work, contemporary and otherwise, had been done on the Lancashire cotton famine, but in no case was it based on such an exhaustive survey of the sources as is to be found in this book. Dr. Henderson shows that the distress in the cotton industry was due not only to the shortage of raw cotton, but also to over-production in the years preceding the American Civil War. In other words, had there been no shortage there would still have been a period of depression. Thus the actual famine came as a godsend to those who held the accumulated 300 million lbs. of cotton goods, for it enabled them to get rid of their stock at higher prices.

Not the least interesting part of Dr. Henderson's study is his description of the attempts to alleviate the suffering of the unemployed cotton operatives. His account of the Public Works Act, 1863, has been available in article form for some time (*Economic History*, January, 1931), but it gains from being placed in the general picture of distress in Lancashire. No one could say that a study of public works as a method of relieving unemployment has a purely academic interest, though whether any definite conclusions should be drawn from the failure of the policy is another matter. It is interesting to note the great amount of voluntary assistance that was given (more than £1 m. being collected), which seems characteristic of the nineteenth century and is seen, for example, in the case of emigration, where voluntary assistance was more important than state aid.

In dealing with the commercial aspect of the cotton famine, Dr. Henderson rightly draws attention to the caution that must be used in handling English official statistics of total foreign trade, which are figures of value and so are not an accurate representation of volume where there has been a considerable change of price. But it is surely wrong to say, " Prices were falling in England in the third quarter of the nineteenth century " (p. 8). That is just the period in which they were rising ; nor is the statement proved by quoting import and export prices in 1857 and 1886 for the fall which the figures show came in the last quarter of the century, or at any rate after 1873.

The bibliography to this study comprises 21·3 per cent. of the entire book, but the apparent disproportion is redeemed by the number of interesting sources upon which Dr. Henderson has drawn. His references to cotton supply range from Australia to Brazil, and in dealing with the commercial aspect of the question he has made full use of the brokers' circulars. There is one error in the bibliography. Dr. Redford's *Labour Migration in England* (1800—1850) appears as " Labour and Migration in England," which, after all, is not quite the same thing. It is to be hoped that the range of this bibliography. indicates that Dr. Henderson is to carry out his original plan of surveying " the effect of the over-production of cotton yarn and goods in 1859—61 and of the American Civil War on the cotton industries of the world."

T.S.W.

Free Banking. By Henry Meulen. (London : Macmillan, pp. 423, 7s. 6d. net.)

THIS book is the second and revised edition of *Industrial Justice through Banking Reform*, which was first published in 1917. Originally the book was published as a condemnation of the banking system, largely on account of that system's adherence to the " fetish of gold." In the author's opinion, banking is a monopoly, and every restrictive banking enactment tends to increase the monopoly powers of the bankers. His remedy is to sweep away restrictions and leave banks free to act as they would ; to issue notes if they wish, for they will act in such a manner as will bring them the greatest benefit, and their greatest benefit would be that of the community generally. He would allow a free and unlimited note issue by almost anyone who cares to issue, for he still believes that notes would not be issued unless they were acceptable, and would not be acceptable unless they were issued by those whom the public could trust. These trustworthy banks would be those who had proved themselves. One must make the obvious retort that trial by error may bring much suffering, especially when one is dealing with such a commodity as money.

Mr. Meulen's reasoning is based on the principle that if *A* exchanges a watch for *B*'s ring then both will benefit from the exchange. Such reasoning may be fallacious ; for if *A* will give £20 for a rope which *B* has in his possession, it might mean that although both are

satisfied with the exchange (having regard to the conditions in which they find themselves), *B* may have previously arranged that the conditions are favourable to himself by pushing *A* into the sea.

Such rugged individualism as Mr. Meulen advocates has frequently been found to lead to nothing less than piracy. This is not to put in a claim for the *status quo*, but merely to indicate yet again the fallacy of one of the fundamental arguments of the book.

N.R.H.

History of the London Discount Market. By W. T. C. King. Introduction by T. E. Gregory. (London: Routledge. 1936, pp. 355. 15s. net.)

Beginning with a brief survey of the conditions of the seventeenth century, Mr. King traces the evolution of broking through its successive stages towards the discount market as we knew it in pre-war days. In this survey, one thread is consistently followed--the evolution of the market *dealing* in money; borrowing on the one hand from those more than sufficiently liquid and lending on the other to those insufficiently provided, with the market acting as the intermediary. The story of the growth of the market, in size and in social importance, from its earlier origins in the "procurers and inducers" to its later stage as an organised discount market, with important member and central banking functions, is a romantic and colourful one not without interest of its own. And the story is told by Mr. King with a wealth of detail that makes a substantial contribution to our knowledge on several important points—*inter alia* the career of Overend, Gurney and Co. and the evolution of central banking technique—and which has obviously involved a great deal of well-spent labour.

From one point of view, the interest of this history lies largely in the relations between the market and other institutions; relations which changed over the course of time as legal and economic changes made their effects felt, involving the market in new and important functions to which it has been, on the whole, surprisingly adaptable. The crisis of 1825 is shown by Mr. King to be an outstanding point in the line of evolution. The function of dealing came to supersede the function of broking as the call-loan market was established and rediscounting fell into disuse by the London banks. The growth of joint stock banking and the opening of branch banks by the Bank increased the volume of bills in the market to make it more than ever an essential

factor in the distribution of credit. And, as Samuel Gurney saw, the market came to be an instrument of the central banking functions the Bank was adopting. In subsequent years, other events altered the relations and functions of the market. The Act of 1844 made difficult for many years the position of the market, especially in relation to its essential function of credit control. The growth of joint-stock branch banking made the market increasingly dependent upon the finance of foreign trade and introduced a new element of sensitiveness into discount policy. While the growing financial operations of government introduced some new problems and solved some old ones. Thus we see worked out by a process of experiment the relations between the market and the country bankers, the joint stock banks, the clearing banks, the Bank of England, and the credit systems of other countries during the eventful financial history of the nineteenth century. Of this history, Mr. King's work is a balanced and most valuable survey that leads one to look forward with a lively expectation to the volume he promises on the war and post-war period.

J.S.

Economics and Sociology : A Plea for Co-operation in the Social Sciences. By Adolf Löwe. (London : Allen & Unwin, pp. 156 5s. net.)

THE sub-title of this book expresses a sentiment shared by many who have long been distressed by the lack of co-operation among those engaged in the specialised branches of social research, and by their apparent indifference to anything approaching a social philosophy. There are few who will not agree with Professor Löwe that the paramount need of the age is for some kind of social synthesis, and that the question no longer is, whether that synthesis is to be achieved or not, but only by whom—whether by those unskilled and undisciplined in the social sciences, or by those whose experience has been clarified, and whose judgment has been sharpened by their training in some branch of social inquiry. To this question there can be but one answer, and it is in an attempt to support that answer that Professor Löwe has developed this extremely interesting and amazingly instructive thesis.

He begins by observing that an excessive use of the principle of division of labour within the social sciences bids fair to outstrip a consciousness of the common purpose underlying all social inquiry.

And he remarks that the often anxious care with which the various specialists hedge around their little field with methodological barriers not only breeds a spirit of rivalry between them, but impairs the value of the contribution which each has to offer. In support of this judgment he instances the striving after " purity " and mathematical exactitude in economics. This he holds to be a vain and dangerous illusion ; vain, in that the premises of economic theory must always be empirical ; and dangerous in that the search for mathematical exactitude and certainty in economics leads to formalism and abstraction.

The data of economic science, he insists, are empirical, and " the exactness of an empirical science does not consist in the formal transparency of its conclusions, but in the coincidence of the rational deduction with the facts." In this, economics does not differ from sociology. But neither are the data of economic theory devoid of sociology reference. " There is no realistic theory of costs without definite ideas as to the role which security, progress, leisure, play in the mind of the leading as well as of the dependent groups." And this points to the interdependence of sociological and economic inquiry.

In dealing with the relations between these two branches of social inquiry, Professor Löwe develops a more concrete view of the nature of economic science, and at the same time does much to relieve sociology of the vagueness with which it is often charged. In this he is entirely successful, and his argument at this point exemplifies what can be achieved by one who is equipped with a knowledge of both disciplines.

There is, however, reason to doubt whether he gives sufficient attention to the economist's claim to select his own data ; and whether he realises sufficiently that the specialist in any study is not the best person to co-ordinate his conclusions with those of other specialists. Perhaps in a fuller treatment of the same subject, Professor Löwe will correct this impression, and to such a treatment all who read this little book will anxiously look forward.

A.E.T.

Public Control of Road Passenger Transport. By D. N. Chester. (Manchester : The University Press. 1936. pp. xi. 226, 8s. 6d. net)

IN the preface to this volume, Mr. Chester poses five questions which

his study is designed to answer—why has control been effected, what are the methods of control used, what differences have resulted in the structure of the industry, what advantages have consumers obtained, and what substitute is possible in a public utility for competitive forces ? Mr. Chester's researches have provided much data on which the reader can rely for answering these questions, though it is not certain that he will find his answers satisfactory.

As the author discloses, the reasons for control are inextricably intermingled. Road congestion, the safety of passengers and others, perhaps a dislike of fierce competition, the loss of traffic by the railways, unsatisfactory labour conditions, a lack of " co-ordination " between different services, and finally the legal muddle into which the control of services had fallen—all played some part. Mr. Chester does not disclose whether he thinks these reasons sufficient for the control imposed, nor does he discuss the possible relation between recent road transport legislation and the Railways Act, 1921. Control might have found three tolerably distinct objectives—safety, by a control of routes and stopping places, by provisions ensuring the safety of vehicles and by a more imaginative use of the Road Fund ; satisfactory working conditions, by regulation of hours of work and standards of remuneration ; and the inhibition of competition (co-ordination ?), by regulating services and fares. Were the reasons for control sufficient for any of these forms of control, for all these forms of control or only for some of them ? The reader must answer this question for himself.

Answering the second question, Mr. Chester makes an exhaustive survey of recent legislation, of the powers of the Traffic Commissioners and the way in which these powers have been used, tracing the policy of control adopted within the framework of the Road Traffic Acts. This is the most interesting part of the answer to this question, for, partly inevitably, this section is inclined to be burdened with detail. Mr. Chester observes three principles which the Commissioners have followed—the principles of " priority," of " protection " and of " public need." As the interpretation of the principles is a matter of considerable complexity, one can only make a general observation while strongly recommending a close study of this chapter[1] to the reader. " Principles " seems hardly the right word for describing the direction of decisions : the rules followed appear to be largely expedients for organising an industry arrested in its development and for dividing out the equity of business in reasonable proportions. It seems to me

[1]Chapter XI.

that it is necessary for us to have a much clearer idea of what we want before true principles can be laid down for its achievement.

What information regarding changes in the structure of the industry and the provision of services to consumers that can be gleaned from official statistics has been marshalled. It is to be regretted that considerable and largely insuperable difficulties stand in the way of assessing the change in trend which legislation brought about Yet, on a long view, this is the vital matter. A comparison of 1935 with 1930 is less illuminating than one between 1935 and what might have been in 1935.

Finally, Mr. Chester is not satisfied that control has evolved a substitute for competition. Prices are at present stabilised at what the author considers a reasonably low level, though he does not discuss the effect of the recent technical advances made in the commercial motor industry or the economies one might have expected (or perhaps expect) from continued rationalization. But, for the future, he is not certain that the public will not suffer both by reason of less satisfactory service and higher prices than competition would provide. In this conclusion he will find many who will agree with him, not the less because what the individualist would consider efficiency is only half-heartedly—if at all—comprehended in the motives with which the industry is regulated.

Mr. Chester concentrates on the true work of research, namely, fact finding, and to a large extent leaves conclusions to be drawn by others. It should, then, be stated that this survey leaves the deep impression that there are important conclusions which it is imperative to draw. And one is easily drawn and easily stated—that one of the least satisfactory features of control is that it is not unsatisfactory to the established operators and the railways, the interested parties most able and most likely to voice their objections. Mr. Chester will have done a valuable service if he succeeds in making us more critical of this innovation in the organisation of industry.

J.S.

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Economic Policy and Re-armament in Britain

The turmoil around the moral and international issues involved in the problem of re-armament seems to have drowned almost completely two important aspects, one technical, the other economic. The Government for good or evil is committed to a programme of increasing the defensive services. Thus these questions assume an urgent character.[1]

First, the question of the choice of the most efficient method of organising military preparation, and secondly the question of incorporating the re-armament programme into the general economic policy so as to achieve the maximum stability in business activity.[2] The answer to the first question depends on considerations of a general order. The second must be based mainly on the analysis of the position in the particular country at the particular time.

I

The amazing progress in the deadliness and rapidity of action of weapons, especially the air arm, has very much increased the importance of having a very considerable force prepared for action at a moment's notice. But the country also requires an up-to-date capital equipment in order to turn out weapons and ammunition in case of war, at a scale which cannot be contemplated in peace. The experience of the last World War left no doubt about this fact, and the White Paper submitted by the Government to Parliament showed that it is aware of the problem.

How is this excess capacity to be obtained ? In normal industrial life it must be regarded as an anomaly, as a result of misplanning due

[1]This paper was written in December, 1935, and subsequently brought up to date. In the meantime the Government has changed somewhat its original attitude of passivity. In so far as the question is still not viewed with due regard to the economic position as a whole the problem still retains its urgency.

[2]As a Royal Commission has not yet concluded its inquiry as to whether the *existing* armament factories should be nationalised or not, this further problem will not be dealt with in this connection. The limitation is all the more justified because the present status of these factories has already been incorporated in the existing expectations of both entrepreneurs and investors on 'change, and therefore would result in secondary repercussions, disappointed anticipations and losses, distinct and superimposed upon the consequences of the decision as to the method followed in the execution and financing of the re-armament programme—i.e. the *increase* in the expenditure of the State on defence, to which we propose to restrict ourselves.

to false expectations. In arms manufacture, on the contrary, excess capacity is essential. There are further differences: in normal industry the location depends on transport costs—both of raw materials and of the finished product—and on the existence of an (at least potentially) adequate labour supply. Private industry will obviously try also to minimise its costs as far as the erection of plant is concerned. In the armaments industry these considerations *should* not play a decisive rôle. Sites should be chosen for reasons of safety against attack, especially air raids, and the factories should be made as impervious as possible against the risk of bombing. These aims are obviously incompatible with the minimisation of cost in the normal sense, though their attainment might well represent—at least socially—a minimum cost in case an armed conflict is unhappily not avoided, as their annihilation and the resulting incalculable loss is made less probable. The higher cost must be regarded as a socially necessary insurance to be borne by the community.

Industrial capacity in excess of that required to supply the peace time demand of a single country, as a closed system, but potentially necessary in case of war, can be obtained by fostering the export of arms. In this way, plant is created, used and maintained without cost either to the State or the manufacturer. This method has been sharply attacked recently on moral and political grounds. But quite apart from these arguments, the future potentialities of war have rendered it totally inadequate. The feverish striving for self-sufficiency by every country must obviously culminate in the establishment of domestic armament industries. No state wants to be dependent on foreign supplies. This may well be the case even on the part of the nations who have no aggressive intentions as a result of the unfortunate experiences with the embargo on exports of ammunitions last year, which hit Abyssinia much more than Italy. But even before the crisis the peace time international demand for arms was becoming more and more restricted to the more backward or agrarian countries—such as China and the South American Republics—and did not amount to more than a fraction of that demand which would arise if first-class powers went to war. The total exports of armaments proper from England were as follows:

	1933	1934	1935
	£1,000	£1,000	£1,000
Ammunition	1,941	2,023	2,058
Arms	766	628	928
Torpedoes, etc.	160	112	219
Other warlike stores	612	420	483
	3,479	3,183	3,688
The export of warships amounted to	680	598	874
That of aircraft (including civil aircraft) to	1,466	1,923	2,681

From these figures it appears to be evident that the plant capacity thus created and maintained is wholly inadequate to meet that emergency for which the re-armament programme is designed to prepare. There exists the excess capacity in most of the armament lines as a legacy of the war, and in shipbuilding as a result of the shrinkage of world trade. Then there are factories which can be easily converted by not too drastic alterations, from peace time uses into armament factories when the need arises. But technical progress since the war has been prodigious and it is to be doubted whether existing factories are technically efficient, whether skilled labour exists, and finally, whether this change without adequate preparation can be accomplished rapidly enough. Most of the up-to-date potential plant, especially in the motor and aircraft industries, is moreover, unfortunately to be found in the South, where it is vulnerable to air raids. The most important Government establishments suffer from the same disadvantage. Much more effectual methods are therefore required.

The White Paper recognises this need and proposes three ways to achieve the objective :

1. Increasing the capacity of existing plant and building new State ordnance factories.
2. Increasing the capacity of existing privately owned armament factories.
3. Obtaining the adaptation to arms manufacture of firms not at present engaged in the production of armaments, but which possess suitable plant and skilled labour.

The establishment of reserve sources of supply in private factories

which are not at present manufacturing ordnance, is only to be applauded so far as it goes. The adaptation of existing factories is obviously much cheaper than the building of new ones, while there is the additional advantage that an efficient existing labour supply is utilised.

The question at issue is how the adaptation of non-armament factories and the extension of private armament factories should be obtained and how far the Government should rely on this solution.

There are two possibilities; either the Government will grant subsidies to these firms with which to provide the necessary equipment or it can give orders, the fulfilling of which will necessitate their laying down the plant. Which method is the more appropriate? The Government does not disclose its intentions fully in the White Paper, and the debates in the House of Commons did not produce any further enlightenment. As far as one can see, it leans to the second alternative, though the erection of some new state-owned ordnance plant seems to be contemplated. This decision is probably due to the ineradicable belief that State factories are less efficient, less inventive, and that the minimisation of cost could only be obtained if the financial responsibility is left to *entrepreneurs*.

In order that the *entrepreneurs* (and investors) should not make losses, it is necessary that the profits on the State orders should be enough to amortise the new plant (or the machinery necessary for adapting the non-armament factories for war-like use). It would certainly be most unfair and without compulsion impossible to demand of the owners of these companies that they should bear an additional sacrifice for the defence of the country as a result of not being able to amortise the new plant. And the White Paper suggests that the orders will be guaranteed to those *entrepreneurs* who co-operate. This means that in case of cancellation of those orders the actual losses will be taken over by the State. If thus the *entrepreneur* is liberated of all risk, it would be equally unfair to the rest of the taxpayers, who are not at the same time owners in these firms, if the ownership of the plant did not devolve on the State directly it had been amortised by the additional profits accruing to these firms through the orders guaranteed in advance. The total expenditure on new plant will have to be paid for out of the orders actually given, as the risk of the re-armament not continuing is very great. That means that financial amortisation will be accomplished long before much of the plant is physically worn out.

Thus there is no reason to suppose that the Government can avoid paying for the additions to plant capacity even if they secure it by giving orders to private manufacturers. On the other hand this method will have dangerous political and economic consequences. Much as we still hope that the arms race will not continue and become even more intensified, we cannot rule out this possibility. If the plant remains in private ownership and a *further* increase in re-armament should become necessary, the manufacturers will then reap additional profits on an already amortised plant. These profits—especially as no risk will have been borne, in so far as the orders the profit on which was calculated to take care of the amortisation of the plant, had been in advance guaranteed—are not justified and must give rise to unfavourable, if not dangerous political reactions. On the other hand a vested interest is being established, whose prosperity and whose chance to reap considerable excess profits depend on the continuation of the arms race.[1]

There is, furthermore, the danger of added economic instability arising out of the speculation in armament shares, which will be stimulated by these reputed profits. However carefully the depreciation allowances are calculated, the inexpert investor will certainly tend to capitalise them as real earnings. It is sometimes—or rather, periodically—emphasised that speculative booms on the stock exchange and their collapse, have no great importance, as one man's gain is somebody else's loss. The experiences of the past few years should have discredited this argument—at least for some time. The increase in the money value of securities obviously increases the ability to borrow and willingness to lend and to put the purchasing power created to productive, or directly or indirectly, consumptive use. A shrinkage of values obviously exerts a deflationary pressure. A stimulus to speculation, additional to that which in any case occurs during recovery, ought therefore to be avoided, especially as the growing tension in international affairs is likely to result in increased instability. The re-armament programme, moreover, is likely to cause economic fluctuation in any case, for reasons which will be explained below, and any intensification of this harmful effect by the rise and disappointment of speculative activity should be avoided. The collapse of speculative positions in armament shares in the later stages of the recovery,

[1]It would be too optimistic to assume that the price control can eliminate such excess profits. If it could, the objection on account of the speculation on the fancied gain would still remain.

when the first impetus of its force is exhausted, might be the first step leading to a general deflation.

The additional plant laid down because of the re-armament requirements will not be destroyed physically after the process of re-armament has been ended. Labour, unfortunately, will in any case be thrown out of work. Excess capital equipment will exist. The re-armament, no matter how it is undertaken, is an economically useless expansion. If, however, the plant more or less completely amortised is left in private hands, a murderous competition is likely to ensue which would very much intensify the inevitable—but possibly only temporary—depression, as it would spread over a large area of business instead of being localised. If the plant is State owned it can be closed down until such time as the increase in demand would enable the Government to sell its plant for peace-time use—in case the international political situation would not warrant its retention for war preparation. This may happen even if lessened tension renders continued full employment of this additional plant unnecessary. If the Government should for some reason maintain its decision to carry out re-armament employing mainly private firms some agreement should be entered into with those firms which would bind them not to utilise such plant for competition in their own peace time lines, which has been amortised by the guaranteed Government orders which they received to induce them to lay it down.

We must therefore conclude that it is from every point of view preferable that the State should assume directly the financial responsibility for procuring the requisite additional armament plant. It should, in accordance with the governmental proposals, utilise the existing firms, both in those lines which already produce war-like stores and which can be converted. The investment should not take place at the risk of *entrepreneurs*. The state would in any case have to pay for it—if losses should be sustained. The latter, however, is rather improbable.

As far as the existing plants go, the State should utilise its power as monopoly buyer, so as to limit the rate and control the use of the profits of private armament enterprises. In the latter direction it should insist that with the growth of profits an increasing proportion should be reinvested in plant, not only without giving any undertaking that this plant will be used, but giving public notice that such an undertaking will *not* be given, that this additional plant must be regarded as reserve. The private manufacturers, moreover, should be forced to

train a labour reserve at their own expense out of their profits. Otherwise the investing public would be misled as the future profits which can be expected, and the same unfavourable repercussions would ensue.

This investigation also tends to demonstrate by implication that the increase of the capacity and duplication of state ordnance plant should take a greater part in the preparation of defence than is envisaged in the White Paper and subsequent Government declarations, at least in the more standardised lines of manufacture, where the possible objections as to the efficiency of these undertakings is less serious.[1]

II

The additional expenditure on re-armament will be of a twofold character.

" *Fixed Capital* " *Expenditure*

(*a*) The cost of *increasing* armaments from the present to the desired higher level.

This increase comprises both weapons and other quasi-capital expenditure like new aerodromes, forts, docks, etc., and ammunition as well as stores. The latter will have to be increased not only because of the growth in total armaments, but also because the more unfavourable international position suggests that increased stocks must be kept for each weapon in existence or about to be put into service. This increase in expenditure will probably start slowly, as the construction of the costlier weapons (like battleships, etc.) takes rather a long time to get under way, and the increase in production cannot be undertaken at a moment's notice even in the less bulky lines. It will culminate in a few years and then shrink rather rapidly.

" *Circulating Capital* " *Expenditure*

(*b*) The charge on the budget arising out of the cost for the upkeep, depreciation of the *increased* stock of armaments and expansion in the personnel of the armed forces.

This increase is permanent and is reversible only by dis-armament.

[1] In so far as private manufacturers in many instances are even by the increased armament orders not enabled to lay down large enough plant to make full use of new technical developments the objection based on the lesser efficiency of public factories is, at least from a technical point of view, unsound.

Therefore, provided that obsolescence is not suddenly quickened by new inventions, and that the development of the international situation will not give rise to the necessity for a further increase in the level of armaments, there will be a sharp fluctuation in the total disbursements by the State on the defence services. These will increase at a growing rate over the next few years then to fall back to a level which is higher than the total expenditure prior to the re-armament programme, but appreciably lower than the peak reached when the bulk of the increase of weapons, ammunition and stores had to be paid for.

The average level of expenditure on defence before the crisis in international affairs was about 100–110 million pounds. Last year the estimates asked for 137 million. This year's estimate is not less than 158 million sterling. These two last figures do not include the cost of the expansion of the services entailed in the re-armament programme. Nor does it make any allowance for certain expenditure in connection with the present crisis. The cost of the total re-armament programme has not been stated. In usually well-informed newspapers, the figure of 300 million pounds is mentioned. The expenditure already voted by supplementary estimates for re-armament, in distinction to the "quasi-permanent" increase of current expenditure, in the present financial year is 30 million pounds. Some further supplementary expenditure may still have to be granted even under this heading.

The expansion in total expenditure[1] already decided thus amounts to about 53 million pounds for this year as compared with last year, which was already about 25–30 million pounds higher than the level before the international political crisis. There will probably be a further increase and the total expenditure on the defence services in all probability will reach 230–280 million pounds per year, according to whether the contemplated 300 million pounds programme is to be finished within four or five years and assuming that expenditure in the later years will run level. About 70–90 million pounds of this will be on re-armament proper.

What is the order of importance of re-armament? According to the

[1] I.e. budget estimates of £158,211,000, two batches of supplementary estimates of £10,300,000 and £19,653,000 as well as £850,000 for anti-gas protection, making a total of £189,014,000 as against actual exchequer issues of £136,949,000. The latter figure, however, includes £6,917,000 for unforeseen expenditure as a result of the Abyssinian crisis. Some expenditure under that head and on account of the Spanish crisis will also this year be required, further swelling the £189,000,000 already voted for armaments expenditure for the current year.

estimates of Mr. Colin Clark[1] total new investment plus provision for obsolescence was about 400 million pounds in 1930. The value of the new buildings erected in the same year is estimated by him at 95 million pounds for dwellings and 36.5 million pounds for other purposes—altogether about 131.5 million pounds. The expansion in building activity, which was responsible for much if not most of our recovery, as measured on the basis of the estimated cost of buildings for which plans are approved (by 146 Local Authorities, unfortunately excluding the London County Council) amounted to about 80 per cent. from the low point (which was about 105 million pounds per annum) and about 60 per cent, as contrasted with 1930. Therefore, the expansion in building activity can be put at about £75–80 million pounds per annum, an increase of somewhat the same order of magnitude which we have to contemplate as a result of the " fixed capital " re-armament. As was to be expected, the building revival has had repercussions on other industries and it is probable that investment and expenditure in other lines has not fallen short of, if it did not exceed, the strength of the primary impulse (if it is legitimate to believe that building was the primary factor and not only one of several forces making for recovery). There is no justification to assume that in the case of re-armament no such similar broadening of the expenditure stream will take place, when the repercussions of the State expenditure make themselves cumulatively felt.[2]

We may thus conclude that the re-armament programme will be a factor of the first order of magnitude in determining economic activity in this country. The problem of co-ordinating it to the present economic situation and tendencies, in order to minimise the dangers inherent

[1]Investment in fixed capital in Great Britain. Special Memorandum No. 38 of the London and Cambridge Economic Service.

[2]The question of the influence of the method of finance on the effect of re-armament will be discussed below. The above statement, however, need hardly be qualified provided the monetary machine is capable of expansion, because in the generally bullish atmosphere prevailing in the beginning of or during a boom the certainty of receiving state orders [and payment] will undoubtedly have a bullish effect even if the expenditure were extracted by taxation or by diverting loan funds which would have been taken up otherwise for private purposes. There is moreover the technical-monetary aspect which is more than likely to stimulate business ; the payment of taxes takes place only after a lag. Re-armament, of course, may have some indirect unfavourable effects on business in so far as it makes the increased international tension more manifest. But this feeling of increased uncertainty, and therefore of a great reluctance to enter into commitments or to invest, may not be avoidable in any case at a later date. As yet the international situation, if at all known in *entrepreneurial* circles, has not had any visible influence on their decisions.

in cyclical fluctuations, assumes extraordinary importance. The dangers are obvious. It has been shown that the effects of re-armament will necessarily have the character of an impulse ; even if business activity were stationary or steadily expanding, the superimposition of the re-armament programme without further safeguards would create a fluctuation in the intensity of economic activity, which would in due time tend to strengthen itself automatically and cumulatively in both directions. But business activity is not stationary or steadily expanding : it is subject to fluctuations of a self-inflammatory character. The re-armament programme, moreover, cannot, like public works of a more useful character, be undertaken purely with a view to the smoothing out of these anti-social and wasteful fluctuations. It has to be undertaken under the duress of an international situation, whose gravity is such that the timing of its execution cannot be altered to suit considerations of business cycle policy (if such considerations without imminent political troubles ever influenced policy, save in a few small but enlightened countries like Sweden or Australia).

It may happen, therefore, that the stimulus inherent in re-armament[1] expenditure is superimposed on an economic system already in a state of economic expansion. It is conceivable that the cessation of the *increase* or even a decrease of the expenditure will coincide with the decline of the force of the other stimuli of economic recovery. Such coincidence would be ruinous and would greatly increase the amplitude of the fluctuation in business activity. The later the stage of recovery at which the re-armament stimulus is administered, the greater, *ceteris paribus*, the probability of such calamitous concatenation of developments ; for only if the other forces of recovery are just on the point of exhaustion will re-armament merely prevent the slump. Such extraordinary good fortune, however, is most unlikely. The cessation of the rate of increase of expenditure itself may be the start of a general depression as firms which supply machinery needed for the expansion of output are, *ceteris paribus*, left without work.

All relevant statistical material point to the conclusion that Great Britain is in fact in a period of very strong expansion. The only point at issue is how long this expansion will last if no economic measures are taken to stabilise it or no extra-economic happenings influence it. We must conclude, therefore, that extreme care must be taken if that unfortunate sequence analysed above is to be avoided.

[1]It is not improbable, e.g. that building in the depressed areas will get a powerful stimulant.

This task is not an easy one but there is a special feature of British recovery which somewhat simplifies it.

Public opinion and therefore politicians, but surprisingly enough also certain economists have been gravely misled by the continued existence of a large percentage of unemployed in their analysis of the business cycle in England, especially in determining what stage of the cycle we are in at present. In actual fact there is no reason to suppose that Great Britain—if no special measures are taken—will at this juncture be able to draw upon an extensive reserve of labour. On the contrary, certain indices such as the volume of production of the iron and steel industry and its manufactured products suggest that the stage is approaching if it is not already reached when actual labour shortage will be encountered in certain bottlenecks.[1] The pressing forward of armament orders through these bottlenecks is bound to have unsettling effects on the whole wage structure and will very much increase the tendency for a boom and instability both internally and internationally. This danger is increased if the prices to be paid are not fixed beforehand, but left to be decided at a later date on the basis of a " fair " profit, a procedure which may satisfy public demand for the prohibition of profiteering on actual armament orders, but must make the manufacturers less careful in their buying of raw materials and intermediate goods required.

Broadly speaking, the recovery restored prosperity only in the South-East and certain areas in the Midlands. It could not revive those areas which depend on exports : indeed to some extent the economic nationalism to which, at least in part, this prosperity is due, further aggravated the difficulties of those areas.[2]

[1]The output of steel actually reached record dimensions in 1935. An approximate estimate of present cyclical unemployment can best be obtained if it is assumed that normal (seasonal, etc.) unemployment is somewhat higher than the pre-war average unemployment, i.e. probably between 5–7 per cent. of the total employed, i.e. about 550–750,000. Cyclical unemployment may be estimated by assuming that any unemployment in the South-Eastern area above this " normal " figure is of a cyclical character and extending it to the whole country (this probably overstates the cyclical unemployment as in the distressed areas large secondary unemployment must exist in the industries which cater for the needs of the depressed industries and their workers). The cyclical unemployment thus calculated is less than 3½ per cent. of the insured population, i.e. about 250,000. " Full " employment, therefore, is not imminent. But from a cyclical point of view full employment in bottlenecks is quite sufficient to cause " cumulative ; inflationary" price movements. Some of the " non-cyclical " unemployment, of course, could be reabsorbed by special re-armament orders ; this, however, necessitates careful planning if it should at all be efficacious. Above calculations were undertaken by the " Economist." Sir William Beveridge seems to be even more pessimistic.

[2]Because it crystallized tariffs, whereas in 1931 at least part of the distress was due to cyclical causes.

If expenditure on armaments were applied, at least partially, to relieve the unemployment due to the changes in the world economic structure, its dangers would be lessened appreciably. Viewing it in the light of business cycle management, most people forget that armaments expenditure is unproductive. It would be of the highest importance if the equally unproductive outlay on relief could thereby be lessened.[1] At the same time the intensification of the boom would be at least retarded as a new labour supply would be tapped. Incidentally some of the distressed areas are in the safest parts of Britain as far as air attacks are concerned. It may be assumed that without special measures their problems would not be smoothly solved. Except for shipbuilding there is hardly a single depressed industry or area which will benefit automatically, while even in that instance the gains of the already prosperous special steel and electrical industries would be at least as considerable as that of the shipyards proper, without a careful regional planning and a very much more direct participation of the state than is envisaged or admitted by the Government.

Though the effect of re-armament on business—if the increased political tension does not alter the bullish general atmosphere—is certainly inflationary, the degree of this force will depend on the method of finance. Other things being equal, there are three ways to cover the cost : (*a*) taxation, (*b*) borrowing of current savings, and (*c*) utilising additionally created purchasing power. It is obviously not only possible but necessary to combine all three methods in varying proportions in time.

(*a*) As long as business is actively expanding, the covering of the current cost and possibly the accumulation of some reserve for increased later expenditure by taxation is necessary not only from a moral point of view—re-armament without tears is objectionable—and not only from the point of view of the financial purist, but also from that of the economist.[2]

(*b*) The floating of a large loan to finance the re-armament programme

[1]The time needed for the completion of factories should be utilised to train skilled labour in those branches of industry which will be needed in case of emergency. Such a programme, however, is hardly capable of being carried out by relying on private initiative on account of the risks involved.

[2]Over expansion, especially in the higher stages of production, might be avoided by permitting the import of machinery in cases where the British productive capacity is already fully employed. In fact recent reports indicate the placing of orders for machine tools abroad. Such procedure would have the additional benefit to promote recovery abroad. It must not be forgotten, however, that thereby the country becomes dependent in any emergency on further imports from abroad which may be very undesirable politically.

without the creation of such a sufficient additional bank-cash that would take care of it without diverting current savings to this use, would certainly be the worst possible way to proceed at the present juncture. It would leave the amortisation of the expenditure to the future: yet on the other hand it would be bound to react on the constructional boom, the mainstay of the present recovery. In the absence, unfortunately, of any sign of a concerted international effort at expansion by an all-round lowering of economic protective measures, which is the only means to broaden and thereby stabilise recovery, the internal prosperity is an essential basis on which to build. At the present juncture when recovery is more advanced here than elsewhere an English initiative for freer international trade may not be possible. It could well happen that the resulting increased imports would not be accompanied and offset by increased exports. This would result in a strain on the exchange which the Authorities may not be willing to contemplate. A breakdown of the present recovery in England would completely annihilate those slender hopes, which remain for a restoration of international economic sanity. It would certainly lead to a further race in competitive depreciation, coupled with ever increasing efforts at economic isolation. If the present rate of improvement is considered dangerously high, an increase of taxation coupled with an appropriate banking policy is the obvious remedy.

(*c*) As soon as any signs of failing business are discerned, the covering of such part of the expenditure by the utilisation of additionally created purchasing power must be undertaken, which would tend to relieve any deflationary pressure which might then develop. It would have been more satisfactory if not re-armament but public works of other more productive and more social nature could have provided the Government with a potent additional weapon to fight the wasteful fluctuations in business activity. But it seems that such more productive public works will never have a chance to be tried out. In these melancholy circumstances, it is somewhat comforting that re-armament may have at least one beneficient (if only an incidental) effect. Re-armament, however, will come to an end. It would therefore be most important to establish at a very early date plans calculated to deal with the position which will then arise, especially as it is well known how long it takes to prepare and to have such plans accepted. It may well be that the other automatic internal stimuli will also be failing in strength. Relief then could be obtained by stimulating exports and undertaking public works of a social character, fostering

low priced building by subsidies or guarantees of cheap capital. The chances of acceptance are not bright but the overlapping of the recovery to foreign countries may well help the solution.

Economic considerations, therefore, should play an increasingly important rôle in the decisions of the Treasury. It is also to be hoped that the Government after careful investigation of the problem will take a much more direct initiative in the carrying out of its defence programme than they seem to be inclined to contemplate at present. Any mistake committed in this direction might well result in serious dislocation and instability. The political, economic, social and strategic reasons which have been briefly enumerated combine to urge this course. Considering the recent worsening of the barter terms of trade of this country the improvement of which has been one of the main bases of recovery ; the threat to the balance of payments arising out of the restored confidence in certain foreign (especially American) investments ; considering, moreover, that a fall in the pound will neither depress commodity prices abroad nor give us any advantage over our main competitors as they have already learnt to counter its effects by depreciating their currencies or by other means ; considering that the recovery appears more and more to develop into a boom as a result of wage and price increases consequent on the superimposition (and strengthening) of the building boom by re-armament, the Government would be well advised to reconsider its decision not to increase direct taxation , it would be well advised to face courageously the grave problem of avoiding an appalling crash at a later but not so much later date.

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Economic Theory and National Policy

When future writers of text-books on economic history come to write on the changes wrought by the great war, it may be taken for granted that one of their chapters will have the heading "The Breakdown of the International Economy," and that in this chapter the attitude of this country in relation to the breakdown will find some mention. Maybe the mention will be no more than that, in the eighteenth century, the country found itself in a position that it could gain from freer trading intercourse, and that a move was made in this direction, which was brought to an end by a period of war; that, on the conclusion of the war, the possibility of gain was even more obvious and that a propagandist organisation was formed, supported mainly by manufacturers and merchants who hoped to share largely in the gain, and that the organisation, aided by more or less extraneous circumstances, was able so to influence parliament that legislative effect was given to the policy of the organisation; that although the policy found support in the theories of the political economists of the time and among those who understood and accepted these theories, this basis of the policy never became firmly grounded in the public mind, indeed, in foreign countries, the theories were received with scepticism, only half-hearted efforts being made to put them into practice; that, even in this country, as the nineteenth century wore on and economic circumstances changed, an undercurrent of opposition found vocal expression which, in the years before the great war, so gained in strength that some reversal of the policy had become a question of acute political controversy; that the coming of war created circumstances and an attitude of mind which made this reversal practical politics, and that, in the conditions of the post-war world, the reversal was accomplished without serious opposition. Having filled in this outline, it is then conceivable that the writer will conclude that, viewed historically, the policy held only for a short time, that it was an episode in economic history, fully explained by the relative economic position of this country during the period of the operation of the policy.

Whether the future historian will write in this strain the future

will reveal, but, if he does, his conclusion would suggest that a policy which undoubtedly represented the practical application of a large part of English economic theory, as it was generally accepted between the beginning of the last quarter of the eighteenth century and the outbreak of the great war, was valid only so long as the conditions which obtained during that period continued. On the other hand, ought the suggestion to be that, even though the conditions had changed, the policy was still valid, and there was no more justification for its reversal than there would have been had the conditions remained unchanged ? The question raised is obviously one which affects the practical value of economic theory, and on this account it seems worth while a brief discussion.

The economic theory involved reaches back, of course, to Adam Smith and is contained in his *Inquiry into the Nature and Causes of the Wealth of Nations.* The title is here given in full for the purpose of emphasising what Adam Smith conceived his book to comprehend. Maybe, as Professor Cannan suggests, he thought of this title as a synonym for " political economy " and was only prevented by temporary circumstances from calling his book *Political Economy* or *Principles of Political Economy*.[1] If this be the case, the title serves to indicate the function of the political economist as Adam Smith conceived of it, for there can be no doubt that it is perfectly expressive of the task he had set before himself. While it may be true that, on the ground of the economic analysis his book contains, he may be regarded as the founder of modern political economy, even as the originator of the most abstract of the present-day analytical schools of economists, it is of some significance that in his book he aimed at presenting the results of his ' Inquiry ' in a way so persuasive that these results might be realised in practice. " When he writes, he writes about what interests most practical men in a manner which every one will like who is able to follow any sort of written reasoning ; and in his time there was a great deal of important new truth, which most practical men were willing to learn, and which he was desirous to teach."[2]

Evidently the important new truth which most practical men were willing to learn related to the causes of the wealth of nations, and it was one of the outstanding merits of Adam Smith's book that the gist of its teaching on this question could be briefly stated and

[1]Introduction, Cannan's edition.

[2]Bagehot, *Economic Studies*, ed. Hutton.

easily understood. First, there was the insistence on the division of labour and exchange—as introduced in the first chapters and amplified in other chapters, especially in those on the mercantile system—as the means to the fullest and most advantageous production ; second, there was the insistence on consumption as " the sole end and purpose of all production," with the corollary that " the interest of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer " ; and third, there was the insistence on the beneficent operation of self interest which, if allowed freely to do so, would regulate and systematise the whole of economic activity. It was on the basis of this teaching that the English classical school of political economy was founded and developed, so that in the 1870's it could be asserted that it was under the influence of this political economy that " our foreign trade, our colonial policy, our poor-laws, our fiscal system, each has in turn been reconstructed from the foundation upwards "[1] ; and that free trade, instead of being regarded as " a heresy and a paradox," could be spoken of as " an accepted maxim of tedious orthodoxy."[2]

The economic theory outlined in the above paragraph represents the result of Adam Smith's inquiry into the causes of the wealth of nations. Production is regarded not as an end in itself but as a means to the end of consumption ; for production best to serve this end the principle of the division of labour must be allowed to operate in all its ramifications and exchange must be free ; while, finally, the direction of consumption and production must be left to the unfettered judgment of individuals. For the rest the 'Inquiry' consists of a working out of the implications of this theory with historical illustrations of the effects of its being or not being observed. Of the extent to which it was observed in this country during the century following 1776 some indication has just been given and, notwithstanding the demand for " fair trade " during the long drawn-out depression in the last quarter of the nineteenth century, and the campaign for tariff reform and Empire preference in the early years of the twentieth century, it continued to be observed until within the last few years. Meanwhile, continental countries, after a period of trading treaties which represented a step in the same direction, reacted in their policy and became more or less highly protectionist. Part of the explanation was that the treaties had been rather opportunist in character with no strong

[1]Cairnes, *Essays in Political Economy.*

[2]Bagehot, *ibid.*

conviction or widespread support behind them, while another part was the outbreak of war and the threat of war which created the need for increased government revenue, and had the invariable effect of intensifying economic nationalism.

But of more fundamental importance for our present purpose is the fact that the implications of the economic theory, as propounded by Adam Smith and carried on and developed by the dominant school of English economists, had never been completely accepted by authoritative continental economists. As the former have conceived of their primary function, it has been to elucidate the causes whereby, in relation to available resources, the production of wealth freely supplied and freely demanded would be maximised, and this elucidation has been held in general to imply the existence of a system of free private enterprise operating under the forces of competition unimpeded and unassisted by State action. Certainly none of these economists—not even Adam Smith—has ever thought that in practice the State could be, or ought to be, absolutely passive in economic affairs. Always the system which they contemplated has been thought of as existing within a framework of regulative legislation and increasingly in the nineteenth century, and more emphatically in the twentieth century, it was recognised that this legislation should be designed to give effect to considerations of social welfare. But, throughout, it is not incorrect to say that measures aiming at social welfare have been viewed in close association with the problem of maintaining and increasing the national wealth and income. And for this attitude there has been the justification that, in the last resort, social welfare is dependent upon an adequate solution of the problem of production. The fundamental reason why English economic theory has lent itself in its practical application to the support of a system of free enterprise, both within and beyond the national boundaries, is that it has seemed that, under such a system, the most adequate solution of the problem of production would be found.

Once the problem of production is accepted as the fundamental economic problem it is doubtful whether any case can be presented against the implications of English economic theory so completely convincing as that which can be presented for them. For unimpeded trading intercourse between nations the case is as strong as it is for similar intercourse between the various parts of one nation, and inevitably this leads to the conception of an international economy as equally worthy of realisation with that of a national economy. It is,

however, pre-eminently on this point that the implications of English economic theory have been repudiated by economists in other countries and questioned by some economists in this country. Simply stated, the question at issue is one of whether, from the point of view of each and every nation, the possible advantages of greater wealth production under an international economy are sufficiently great to outweigh the possible disadvantages which, it is insisted, are involved in the implied economic interdependence of nations.

II

At the outset it should, of course, be noted that those who have insisted on the possible disadvantages of economic interdependence have almost invariably taken them to include not only economic but also social and political disadvantages. With nationalism at the centre of their thought, economics and politics have been regarded by them as mutually interacting to the attainment of nationalist ends. Thus, the State, instead of occupying the somewhat aloof position contemplated in English economic theory, is accepted as a much more dominant factor in economic affairs, and the economic policy pursued tends to become an expression of State policy. Theoretically, it is possible to conceive of the utmost economic freedom being regarded as consistent with economic nationalism but, on the other hand, there is no logical reason why this nationalism should not lead to the conclusion—which has been nearly reached by some writers—that a nation would be well advised to do without foreign trading intercourse. Seeing, however, that economic nationalism may and frequently does regard a large foreign trade as desirable, it is evident that the theoretical case presented for it must be sought in less extreme writings, and of such writings there has been a succession since within a few years after the publication of Adam Smith's 'Inquiry.'

In all these writings, from the first to the last, there is at least an implied tribute to Adam Smith in the efforts of the writers to undermine the theoretical citadel of which he laid the foundations. These efforts comprehend those of historians and statesmen who see in what Smith described as "the mean and malignant expedients of the mercantile system" the bases of the subsequent economic and political strength of the British nation; those of social philosophers who declare that the underlying philosophy of the *Wealth of Nations* is not in accord with the social interest, that an abundance of wealth is not the most desirable social end, that division of labour is destruc-

tive of the peculiar qualities of individuals and peoples, and those of analytical economists who seek to show that, under certain circumstances, ends which presumably even Smith himself would have thought commendable may be best attained by devices of restraint and monopoly. Indeed a strong case can be made for the contention that the positive side of the theoretical case for economic nationalism is a compound resultant of such various efforts to disprove what is called the cosmopolitan teaching of Adam Smith, in order that it may be replaced by nationalist teaching.

After the publication of the *Wealth of Nations*, with its destructive criticism of the old mercantile system, the first systematic statement in support of modern economic nationalism appeared in a *Report on Manufactures* submitted to the American House of Representatives by Alexander Hamilton in 1791. Even if the statement did not accomplish much at that time its persuasiveness is undoubted, later statements having derived much from it. Its background is that, as only fifteen years had elapsed since the Declaration of Independence, the country was in the early stages of the process of unification, the statement being intended as a contribution to that end. Stated briefly, Hamilton's plea was for a nation secure against external forces both military and economic, which meant that it must strive to possess the essentials for a self-sufficing economy. This economy must be a balanced economy: it must not be so specialised by trading intercourse with foreign nations that its smooth working could be violently dislocated. Within the nation there must be diversification of industries allowing scope for the advantages of division of labour and for diversity of talents; the nation must have its workshops and its fields, the urban and the rural populations constituting the markets for the products of each other. Thus Hamilton insisted on the supreme importance of the home market as regards the employment of both labour and capital. As he saw the position, the wealth of a nation was to be reckoned mainly by home investments, giving employment to the nation's own workers, for in so far as investments were placed abroad they were of little value except to the individual investor and to the country they were assisting to develop. Clearly, Hamilton did not leave a great deal to be added to the aims of economic nationalism, and much the same can be said of the methods he suggested whereby these aims might be attained.

Probably, in the type of economy which Hamilton favoured there is not as much that Adam Smith would have objected to as

might be thought, but it can hardly be supposed that he would have been equally sympathetic towards the suggested methods. These methods, of course, involved strong State action. In Hamilton's view the State could create the type of economy it desired, and the type Hamilton desired was not likely to come into existence if left to the action of individuals, but only under the care and direction of the State. It was the business of the State to provide inducements whereby men would readily engage in the required industries, to protect these industries, especially in their early stages, against assaults from the industries of other countries, and to meet the commercial policies of these countries with a vigorous policy of national defence. Tariffs, bounties, premiums, each had their place in the scheme, as well as government works, supervision, and other devices, each designed to assist the attainment of the end in view.[1]

Since Hamilton wrote, contributions to the theoretical case for economic nationalism have been made from many angles, and his arguments have been elaborated and extended and new ones adduced. Moreover, it is highly significant that of the predominantly economic contributions some of the most important have been stimulated by conditions in the United States, the country which on account of its size, population capacity, and natural resources, is most adequately equipped to give effect to a policy of economic nationalism, and which, indeed, with some vacillation, has most strongly sought to realise the policy in practice. The name of Frederich List is associated with both the United States and Germany. It was in the economic and political atmosphere of the United States, which Hamilton had helped to create, that, during his residence there (1825-1832), List formulated and gave early expression to the views which in 1841 found fuller expression in his *National System of Political Economy*.[2] In this work Hamilton's aims and arguments are powerfully reinforced and supplemented and given wider sweep. List's conception of the stages through which the economic life of nations had to pass until a system of agriculture, manufactures, and international commerce was established is well known, as is his insistence on the need for the State to aid in the transition and especially to protect the manufactures on the ground that, without this protection, older-established nations

[1]F. S. Oliver, *Alexander Hamilton*. This book can be regarded as a strongly sympathetic study of economic nationalism.

[2]While in the United States, among other activities, he engaged in journalism and wrote a number of articles which were published in 1827 under the title of *Outlines of American Political Economy*.

would dump them out of existence. Of these nations England was the most important and List professed to discover that it was by the pursuance of such a policy that she had built up her industrial and commercial supremacy, and contended that the United States and Germany must bring themselves into a position from which they could challenge this supremacy. He thus thought of the situation in terms of power and conflict and was inclined to consider that, if the territorial limits of a nation were inadequate to the realisation of nationalist aims, war and annexation of territory might be justifiable. In particular this might be true of Germany; in the United States, with their resources, the argument could hardly have as much weight and, on the whole, nationalist doctrines in that country have not induced a militarist attitude, involving possible annexations of territory, but have been mainly confined to influencing the terms of United States' participation in international commerce. Finally, List's view should be noted that, when nations had passed through the stages leading to a fully developed national economy, they should then adopt a free-trade, policy and be subject to the stimulus of international competition, and his visualisation of a time when all these nations would be united in the form of a confederation.

It will, therefore, be observed that although the first practical effect of List's teaching must be very different from that of Adam Smith and his successors, there was hardly any essential difference as regards the ultimate end. Leaving aside relatively minor points, the policy advocated was one of protection for infant industries, the theoretical case for which has often received influential recognition since he presented it. Strangely enough, as it appears, List did not consider that the policy should be extended to agriculture. The agricultural activities of a nation, he thought, should be determined by nature; moreover, he feared the possible injurious reactions of agricultural protection on the development of manufacturing industries, and believed that agriculture, through a prosperous home market, would derive benefit from that development.

List published his *National System* after his return to Germany and the work had special reference to the position of that country. On the other hand, Henry C. Carey, whose views on the advantages of economic nationalism were similar to those of Hamilton and List, was an American who ever had in mind the position of the United States.[1] With him, too, England's industry and commerce were a

[1]Carey was born in 1793 and died in 1879. His writings most relevant to the subject of this discussion belong to the middle years of the nineteenth century.

matter of sore reproach, for in his view they had been established by a policy of exploitation and exclusion ; even the adoption of free trade by England had as its object the maintenance of the advantages thus gained, and the reduction of other countries to the position of supplying this country with natural products and receiving her manufactures. For the United States the remedy was protection, not only for manufactures, as with List, but also for agriculture ; indeed, Carey ultimately went far in the direction of advocating a policy of complete economic isolation. The external result of this policy, Carey held, would be to compel England to change her policy, while internally the result would be seen in a development of manufactures and agriculture, one complementary to the other, giving scope for that diversity, association, and economic efficiency, with consequent general welfare, without which there could not be a stable and complete national life.

This brief account of the thought on economic nationalism as expressed by Hamilton, List, and Carey covers a period of nearly a century after the publication of Adam Smith's 'Inquiry.' The thought had served the purpose of formulating the theoretical case for economic nationalism as opposed to economic internationalism, but although the thought undoubtedly had its influence on practice during the period, this influence was by no means so great as that of the thought of Adam Smith and his successors. That part of the case which had the greatest influence, especially in Germany, was List's exposition of the policy whereby, as he insisted, England had been able to build up her manufacturing industries, and of the need for other nations to follow her example. Even so, as already indicated, there followed the period of commercial treaties which, for a time, seemed to give good reason for the belief that freer trading intercourse would become the generally accepted policy of nations. When this period passed, especially in continental countries, the arguments for economic nationalism were extended and set forth with renewed force, and the power of the State was more emphatically invoked as a means to the realisation of nationalist aims. In the older thought on economic nationalism there was an inclination towards economic isolation, or, at any rate, this nationalism was thought of as being realised within the boundaries of a compact national area, which it was allowed might have to be extended in order to make it more complete for the purpose.

Actually it was as other nations followed the advice of List and came to possess manufacturing industries comparable with those of England, without which in his view they could not realise their

economic nationalism, that the older thought underwent modification. List had contemplated a stage being reached when these industries would not require State protection and agriculture was not to have this protection at all. Instead of that stage being reached, the growth of manufacturing industries and the conditions of their economical working led to the desire for large and secure markets, first the home market, and second such external markets as might be available. This desire, indeed, is reflected in the commercial treaties into which European nations entered and especially in the concessions which were obtained in the countries of the Far East. To the extent that the desire was realised, imports of natural products followed as a necessary consequence and these, by their reaction on agriculture, helped to create a demand for protection from agricultural interests, a demand which was supplemented by those who, with the theoretical case for economic nationalism in their minds, wished for social and defensive reasons to retain a due balance between agriculture and manufacturing industries. The summary statement would hardly be questioned that it was out of the situation here indicated that the further desire arose in European nations for the control or possession of external territory which would at once provide a more extensive market for their manufactures, constitute sources of supply of the requisite raw materials and foodstuffs, and help to satisfy the aspirations of economic nationalism. One outstanding result of the desire was seen in the " scramble for Africa " in the last quarter of the nineteenth century, and underlying the campaign in this country for tariff reform and for preferential economic relations with the more advanced parts of Greater Britain was a similar order of ideas. Under the circumstances, detailed evidence need not be adduced to show that economic nationalism in its later development was one of the most important causes of the attitude of mind which eventually found disastrous expression in the outbreak of the great war.

If the war has shown anything conclusively it is the incompatibility of the attitude of mind just noted with the permanent maintenance of an international economy. For notwithstanding the compelling force of the arguments for economic nationalism, an international economy had come into existence by 1914, and the economic structures of all the great nations were in greater or lesser degree adapted to it. But, while the people of these nations were unwilling to forego the methods of economic nationalism, they desired the advantages of an international economy, and inherent in the situation was the probability of conflict between the nations. That the war in its consequences did nothing to

solve the difficulties of this situation is now apparent ; on the contrary, the difficulties were greatly increased. During the war nations which were relatively immune from it were impelled to expand their industrial structure in directions which economic nationalism would seem to sanction, and in so doing they created future difficulties for themselves and for nations, not thus immune, whose industrial structures were further distorted by being compelled in directions dictated by the exigencies of war. Thus, under the most favourable conditions conceivable at the end of the war, large readjustments were certain to be required, but the conditions were not so favourable. Whatever the peace settlement may have achieved in the political sphere, its effect, especially on the continent, was to break down the pre-war economic relations and to afford scope for the policy and methods of economic nationalism to find extreme expression. On the concrete facts of the situation this expression is easily understandable, the more so seeing that the war had given poignant emphasis to that part of the thought on economic nationalism which stressed the need for security and which inclined towards isolation. Involving the world at large were the problems associated with reparations and with the related complex of international debts and other financial obligations rendered insoluble by the actions of nations whose industrial structure perforce caused them to desire the continuance of an international economy, but whose methods tended to be less and less consistent with a realisation of the desire. As is now perfectly clear, no real progress was made in the first ten post-war years towards solving the problems which the war had left for solution. Rather, the problems were obscured until they culminated in the breakdown of the international economy in 1929 and the succeeding years, of which the unmistakable token was the departure of this country from the gold standard and its undisguised adoption of the policy and methods of economic nationalism.

III

The present economic situation can therefore be explained as the consequence of intensified economic nationalism operating in a world which in very large measure had become international in its economy. To the extent that this intensification of economic nationalism persists, corresponding readjustments of the industrial structures of the nations must be involved. Meanwhile, in the decline of international trade, in the state of employment, in the breakdown of the

world's monetary system, in the chaotic state of national finances, and in the almost universal social and political unrest, there is nothing surprising but rather something which ought to be expected. Slowly the required readjustments may be effected but, if they are, and an orderly international economy is again established, the nations of the world have already so far committed themselves to policies of economic nationalism that the economic relations which exist within this international economy must be very differently arranged from what they were at the outbreak of the great war. Not to recognise this fact and not to act accordingly is simply to prolong the period of readjustment with its inevitable distress and attendant dangers.

No doubt it can be urged that systematic thought has never played much part in determining national economic policies and that, especially during the last twenty years, it has been much more a matter of *sauve qui peut.* Whatever weight may be given to this view it is, however, true that, accompanying any particular national policy, there is always an attempt to find an intellectual basis for it, and there can be no question that this has been and still is the case with the policy of economic nationalism and its alternative. As the detached observer sees the position, the choice has been and still is between the policy implied in the teaching of English economic theory since the time of Adam Smith, and the policy whose intellectual basis is the theoretical case for economic nationalism. This choice is one between two policies, each of which has the support of theory and, on the face of it, it seems almost inconceivable that two widely accepted theories relating to the same phenomena, viewed in the same aspect, can be so divergent as to give support to policies between which there can be deep-seated conflict. The fact is, of course, that, in this case, the two theories, even though they do relate to the same phenomena, are not concerned with these phenomena in the same aspect. English economic theory is primarily concerned with the positive aspect of the phenomena, with the operation of certain fundamental forces inherent in them, and with the results the unimpeded operation of these forces will achieve. The theory of economic nationalism adopts a more normative point of view. While it, too, is concerned with the operation of these forces, the deliberate aim is to secure that the results achieved shall be in accord with the various objectives of national policy. If positive economic theory be defined as a systematic statement of the operation of these fundamental forces, it can be convincingly argued that policy simply limits the field of operation and that, whatever the

policy pursued, even though the policy be economic nationalism, recognition can still be given to the validity of this theory—as indeed it is. If this were not so, there would seem to be an intellectual conflict which, at the present stage of thought, would prohibit even a plausible answer to a question in which is involved the future welfare of the world and especially the European part of it.

Regarding the question as a purely economic question it is one of the economic objectives that nations seek, and of the methods they utilise for their attainment. The solution suggested by positive economic theory would be the adoption, both within a nation and as between nations, of a policy of unimpeded trading intercourse. If the reply were made that this would mean such a merging that a diversified national economy and a distinctive national policy would be impossible, one part of the answer—which could be verified by a consideration of the diversified conditions within the confines of the nation which most nearly adopted the policy of unimpeded trading intercourse—would be that this merging with its suggested consequence does not and cannot in practice—and hardly in theory—occur; and another part of the answer would be that a policy of unimpeded trading intercourse may be quite as much an expression of a distinctive national policy as any which may find expression in the most extreme measures of protection. So long as it were permitted to treat the question as one of the attainment of purely economic objectives it would be possible to give replies, except as regards certain dark corners of a vast area, which are intellectually convincing or, at any rate, far more convincing than the counter-replies which are usually adduced.

It is, however, impossible to ignore the fact that equally convincing replies would be by no means so easy if the above permission were not allowed, and if it were insisted that the objectives must be extended to embrace more than the purely economic, an attitude which the supporter of economic nationalism and its methods might, consistently with his theories, quite reasonably adopt. Moreover, he might point out that even a nation which can reasonably claim to have operated a policy of unimpeded trading intercourse, both internally and externally, has frequently sought objectives in its internal policy other than the purely economic and, in order to attain them, has utilised the coercive power of the State or in a lesser degree has allowed the exercise of coercive power to strongly organised sectional interests. How, he might ask, is the position, in essence, different when a nation

utilises its coercive power in the form of restraints on international trading to the end that objectives other than the purely economic may be gained ? It is possible, indeed, that he would be ready to allow that the restraints would involve an economic loss, but, at the same time, would insist that the loss was more than compensated in the objectives gained. To such contentions, positive economic theory provides no conclusive answer, and does not pretend to provide an answer. In so far as an answer can be found in economic theory it is to be sought in the more normative aspect of economic theory, and it is this aspect which is emphasised in the theoretical case for economic nationalism. But, to this last statement must be added the proviso that, whether a body of economic theory which is at once normative and scientific has been or can be formulated, is, in this article, left an open question.

Sufficient has been said, however, to indicate that the view here expressed is that English economic theory as it has been developed by Adam Smith and his successors, although it certainly carries implications concerning the economic policy of nations, does not afford ground for a general condemnation of a policy of economic nationalism, or of any other national policy, for in these policies objectives other than the purely economic may be included. On the economic outcome of these policies, on the methods adopted, on the impossibility of securing a yea and a nay at the same time, this economic theory may have much to say which wisdom could not possibly disregard. Nevertheless, the position remains that if, for example, a nation which imported a large proportion of its agricultural supplies were, say, on social or political grounds, desirous of expanding its agricultural activities and of reducing those, say, of manufacture, and to this end, having counted the direct and indirect cost, imposed restraints on its agricultural imports, positive economic theory could have no further say in the matter, and so with other cases of similar character.

The proceeding could not, of course, abrogate or invalidate positive economic theory. Its effects in this direction would be to modify the results achieved by the previous operation of the fundamental forces with whose operation positive economic theory is pre-eminently concerned. That the proceeding would have external repercussions goes without saying : how economic nationalism, especially in some of its manifestations, can project into the international sphere without some form of international conflict is as yet an unsolved problem.

G. W. Daniels

The Struggle Between Truth and Propaganda

WHILE under the Holy Alliance stillness reigned over Europe, modern dictatorships resound with the voice of enthusiastic crowds. While absolute monarchy claimed all public matters for itself bidding the citizens to keep quiet and to mind their private affairs, party dictatorship demands active participation of all men and women in public life ; the machine of democracy is kept in full swing, not indeed to give opportunity for expression of opposition views, but to let the people show their enthusiasm for the reigning party and to let them discuss how they could even more zealously fulfil its policy. Freedom today is drowned in popular emotion.

The democratic machinery can be safely used in this fashion as a drilling ground for professions of loyalty if only every public body is watched by a sufficient number of determined party members who, in their turn, can rely on swift and merciless action of the police. Experience shows that a few per cent. of party members backed by police can bully the rest of any public meeting composed of indifferent or unorganized opponents of the government into loyalty, making the gathering appear or even to be full of enthusiasm. However, even a considerable proportion of party members has proved to be ineffective if, as in the case of the Protestant Church in Germany, they are not supported ruthlessly by the police. The use of the democratic machinery for the subjection of the people is thus seen to depend ultimately on police terror. Every citizen has to know that he is under surveillance of an armed force wielding arbitrary powers to imprison or execute him on the suspicion of opposing the government's policy.

Dictatorship wishing to control the totality of human life in its territory will try to extend the democratic machinery as far as possible ; it will draw the whole adult and juvenile population into participation while at the same time widening the scope of public life to include activities formerly private, such as, for example, sports, love or cooking. The democratic machinery is tested periodically by its rulers through the taking of votes. On these occasions the party uses its powers of persuasion, surveillance and intimidation to the utmost. An efficient dictatorship will obtain practically unanimous

votes even though admitting widest franchise and secret voting, while polling will reach percentages ranging up to figures unheard of in democratic countries.

The more cruel a dictatorship the more democratic can—and will, in general—be its institutions. Hitler has often defied the very much milder Austrian government to follow his example in taking a popular vote on its policy ; and there is little doubt that if he once should rule in Vienna he would bring general franchise and the secret ballot to the people of Austria, who will by these channels approve his policy as emphatically as did, for example, the inmates of the concentration camp of Dachau in 1934.

The dictatorial use of the democratic machinery was first developed in the war. Propaganda ministries wielded emergency powers to impart orthodox information, ideas and feelings and to stamp out other views. Modern dictatorships are well aware of the use of war methods in their home policy. They constantly refer to their activities in military terms, and they justify their arbitrary powers by keeping up a state of warlike emergency, real or imaginary.

This mechanism of modern dictatorship seems obvious to any observer who is out of sympathy with the reigning party. If he cares little for either Communism or Fascism, the similarity of the various Party dictatorships will seem equally obvious to him. The non-Communist reader will, therefore, be deeply struck by Mr. and Mrs. Webb's account[1] of the political system of the U.S.S.R., which conveys a very different impression. On close examination of the book he will find the following explanation of the discrepancy.

The authors trace the main outline of the political systems by presenting its legal structure and its most patent facts. Accordingly, they draw a monumental picture of its public life which embraces the young and the adult at work and at leisure, operating through millions of meetings and discussions, based on a wide franchise and on pollings ranging up to almost one hundred per cent. We are made to admire the functioning of the democratic machinery—which under dictatorship rattles the louder the more effective the secret terror is which controls it from below—and we are made to delight in the freedom enjoyed by the citizen. No single detail of this account is literally incorrect ; it is mainly by the space given to the description of the structure and operation of the democratic machinery and by

[1] *Soviet Communism : a New Civilisation?* By Sidney and Beatrice Webb. 2 vols (Longmans Green. pp. 1174. 35s)

the enthusiastic comments accompanying it that the picture of a free and powerful democracy is impressed on the reader.

Nor are the actually operating powers of the dictatorship such as Stalin, the Party, the OGPU left undiscussed. But the references to these are not allowed to destroy the picture of a great democracy; they become assimilated to the main argument or else, where some circumstances are admitted to be at variance with it, their weight is reduced to that of merely passing or at the most, unfortunately unavoidable minor circumstances.

The result is a presentation which, at first sight and probably to most of the readers, conveys nothing else but a monumental apologia of Soviet institutions and of the freedom enjoyed under them, while, on closer examination it proves to be so full of nicely adjusted reservations and containing so many details incompatible with the main argument that the careful student finds it impossible to form any picture whatever of the political system of the country.

The greater part of the book bears directly or indirectly on the political system; the other parts dealing with economic matters, social services and scientific work are built up by a method similar to that used for the presentation of the political system. The authors base their main argument on the information given to them or to other writers by the Soviet government. This material, underlined here and there by the authors' enthusiastic comments and accompanied by their interesting reflexions, makes easy reading to the general public. The material, however, having been originally issued with a view to propaganda, is unsystematic and, therefore, most unhelpful to a student seeking serious information on any particular subject. On careful reading one finds, indeed, that the gaps, inconsistencies and vague points are so numerous that it is not possible to draw any definite conclusion of a general kind from this material.

I will now quote some specific evidence in support of this general criticism, drawing it mainly from the authors' discussion of the political system which dominates their account of the U.S.S.R.

The first volume (528 pp.) deals with the Constitution of the U.S.S.R. as the authors see it. They claim that this is composed of—

(1) The legally instituted political bodies described in the section "Man as a Citizen."
(2) The Trade Unions in conjunction with the parallel bodies of the non-wage earning population forming together the organisation of "Man as a Producer."

(3) The co-operative shops, comprising " Man as a Consumer," and
(4) The Communist Party, which is described in a chapter entitled " The Vocation of Leadership."

In the introductory chapter on " The Constitution as a Whole," it is pointed out that these four organisations are the most important of half a dozen " pyramidal structures " each " based, according to a common pattern, upon a vast number of relatively small meetings of associated citizens for almost continuous discussion, and for the periodical direct election or primary representative councils. Each of these structures rises tier after tier, through successive stages of councils, governing ever-widening areas and constituted by indirect election, up to a group which is supreme for each particular mass. These half a dozen culminating groups, in different combinations, and by more or less formal joint consultations, constitute the source of all governmental authority, whether legislative or executive." (p. 4). The principle of self-government incorporated in these pyramids is further emphasised on the page entitled " The Power Cable " : " The power needed for administration may be generated in the innumerable meetings of electors, producers, consumers and members of the Communist Party, which everywhere form the base of the constitutional structure. It is transmitted through the tiers of councils as by a mighty conducting cable, working, as it passes, the machinery of government in village and city, district and province and republic. It is this conception of an upward stream of continuously generated power, through multiform mass organisation, to be transformed at the apex into a downward stream of authoritative laws and decrees and ' directives,' that is indicated by its inventors by the term ' democratic centralism ' " (p. 7).

The next 150 pages deal with " Man as a Citizen." In the sub-section " The Base of the Pyramid," the electoral franchise is carefully compared with western systems and its extraordinary wideness emphasised. Directing our attention more particularly to the political rights of the rural population we find that in the meetings of the village electors " the discussions range over the whole field of public interests." " The village meeting may pass resolutions in the nature of suggestions or instructions on any subject whatsoever......" (p. 25). As to the village Soviets elected by these meetings " the newest decree insists that it should consider and discuss also affairs of rayon, oblast, republic and even U.S.S.R. importance " (p. 29), and further we read that according to Soviet jurists " within the village the selo- (village-)

soviet is " sovereign "; meaning that nothing which it does requires the sanction of any higher authority before it is put in operation " (p. 30), a statement to which the authors add the exclamation " This does not look as if the Soviet Government was afraid of the peasant, or distrustful of popular democracy ! " (p. 30).

The rural part of the population of U.S.S.R. was up to 1928 more than eighty per cent. and is even now not less than seventy-five per cent. of the total. We are told that this numerical preponderance always outweighed the less favourable rate of representation of the rural population so that " the delegates deriving their mandates ultimately from the village soviets at all times constituted the majority of the All-Union Congress of Soviets " (p. 445), which is the supreme body in the Soviet Hierarchy. This body elects a Central Executive Committee called " TSIK " to which, we are told, is entrusted " all legislative and executive power " in the interval between the biennial meeting of the Congress which lasts only a week or so (see pp. 83 and 87).

We are thus led to understand that the political system of the U.S.S.R. is that of popular self-government which, owing to the overwhelming numerical excess of the agricultural population, naturally leads to a preponderance of the rural representatives. Nor should we doubt that the people make effective use of the wide liberties granted to them, since according to the authors " nowhere in the world outside the U.S.S.R. is there such a continuous volume of pitiless criticism of every branch of government " (p. 773), and at the close of their book they re-emphasise it that " there is, as the student will have concluded, no country in the world in which there is actually so much widespread public criticism of the government and such incessant revelation of its shortcomings, as in the U.S.S.R." (pp. 1026-1027).

Nor should any apprehension that the Communist Party might exercise undemocratic pressure on the decision of the people be sustained, since " neither the organisation nor the activities of the Communist Party are so much as mentioned in the " Fundamental Law " or in any statutory amendments of it. Nor has the Party any legal authority over the inhabitants of the U.S.S.R., not even over its own members ! " (p. 340), and accordingly " If the Party influences or directs the policy of individuals or public authorities, it does so only by persuasion. If it exercises power, it does so by " keeping the conscience " of its own members, and getting them elected to office by the popular vote " (p. 340).

These statements should establish it beyond doubt that the U.S.S.R. is the freest peasant democracy of the world. The reader is, therefore, deeply puzzled how to reconcile them with the action described in the section pp. 237-272, by which the Government of the U.S.S.R. transformed the majority of the peasant holdings into collective farms, overcoming—as the authors tell us—the fierce opposition of the whole agricultural population.

The authors do not refer to the discrepancy of this action with the statements made in the course of their principal argument quoted above ; instead, they introduce the subject as follows : After the civil war in which the peasants supported the Red Armies " the peasants, poor, middle or kulak, now imagining themselves proprietors of the land they tilled, demurred to parting with their produce to feed the cities, even at free market prices, so long as these prices did not enable them to obtain the manufactured commodities they desired at something like the old customary rates. The peasants, moreover, even the very considerable proportion of them to whom the revolution had given land for nothing, resented, like peasant proprietors all over the world, the levying on them of any direct taxes. Nor did the marked development, in the village, of the characteristic peasant vices of greed and cunning, varied by outbursts of drunkenness and recurrent periods of sloth, produce anything like general prosperity, nor even any common improvement in agricultural methods. What became apparent was that the peasant, formerly servile, was becoming rebellious " (pp. 238-239).

For an appreciation of this passage we have to recollect two facts not directly pointed out in the book

(1) The peasants in Russia were at all times much poorer than the urban population.[1]

(2) The direct tax claimed by the Soviet Government and actually obtained after collectivisation amounts to about 40 per cent. of the net income of the farmer.[2] This is illustrated unintentionally in the book by the account given of a successful collective farm by which " 227 tons of grain was sold [in 1932] to the Government out of a total grain crop of 619 tons " (p. 280).

[1]*Summary of the Fulfilment of the First Five-Year Plan*, Moscow 1933, states on p. 197 " peasants and collective farmers drawn into industry have raised their living standards 2·5 to 3 times."

[2]See M. Polanyi *U.S.S.R. Economics*, Manchester University Press, 1936 ; p. 7 ; and Knickerbocker *Rote Wirtschaft und Weisser Wohlstand*, Rowohlt, Berlin 1935, pp. 49–50, where the Government prices paid for wheat are compared with the price of bread sold by the Government.

> " Selling " to the Government means grain delivery at a nominal price, the amount delivered in this case is—deducing 10 per cent. for re-sowing—40 per cent. of the net crop.[1]

Carrying these facts in mind one might well be struck by the tone of ironic deprecation in which we are told that the peasants " resented, like peasant proprietors all over the world, the levying on them of *any direct taxes*," even though " *the revolution had given them land for nothing*." How mean of the peasants—we are asked to feel—not to pay gladly to " the revolution " some 40 per cent. of their income in return for its gift! And we actually hear the masses of the poor defamed as greedy and cunning drunkards because they are unwilling to be taxed at the rate of 40 per cent. by a Government supported only by a small relatively prosperous minority.

In other places and at other times it used to be rather the Governments acting in such manner which were reproached of greed and cunning by the advocates of justice and freedom, but the authors do not consider this alternative; feeling that the Soviet Government has no other purpose than " to obtain for all the conditions of the good life " (p. 1018), they freely speak of " 120 millions of peasantry steeped in ignorance, suspicion and obstinacy " (p. 245), without giving any consideration to the wishes and rights of these millions, not noticing that their attitude justifies Hitler and Mussolini, Colonial Imperialism and the Holy Inquisition as well as a number of less illustrious tyrannies who all are or were seeking the conditions of good life for those oppressed by them—as sincerely as do the Soviets. To them it seems, " where systems differ is in who wields the bludgeon and with what purpose " (p. 1032); so long as they approve of the bludgeoner and his purpose they call it democracy.

The authors' reluctance to adopt this doctrine consciously and openly seems responsible for the various paradoxes in which they get involved. Of these the following is a further example close at hand.

We are told that the fight over collectivisation was at its height in the year 1931. " Beginning with the calamitous slaughter of livestock

[1]The lack of any direct statement on the rate of the grain levy is one of the most serious gaps in the book. The report on Taxation, pp. 116–117, mentions a single agricultural tax "on all agricultural enterprises" (which is said to be much in favour of the collective farms as compared with the individual peasant), but no rates are quoted—although the figures for the " progressive income tax " are given in detail. The grain levy is at the bottom of all the main political social and economic events of the past nineteen years in the U.S.S.R. The reader who is left uninformed about the actual size of this levy cannot possibly understand any of these events.

in many areas in 1929-1930, the recalcitrant peasants defeated, during the years 1931 and 1932, all the efforts of the Soviet Government to get the land adequately cultivated " (p. 265) ; yet have we not learned on an earlier page that during the same period the Communist Party was enormously popular among the peasants ? We have been told that " it is significant of the character and popularity of the Party that out of 59,797 village soviets at the 1931 election, 35,155 chose a Party member as elected president, who is always a member of the local presidium, whilst 3,242 others elected a Comsomol " (pp. 31-32). We are thus asked to believe that at a time when the peasants were killing their cows in a desperate struggle against the communist policy, the popularity of the Party among them was so great that it caused them to elect a member of the Party as soviet chairman practically whenever or wherever they could find one. One is left to wonder whether perhaps the word " character " associated with the word " popularity " in the above passage might not indicate a reservation which resolves the paradox : " character " might perhaps stand for " terroristic character."

The short chapter entitled " In Whose Interest Does the Government Act ? " (p. 449) suggests, however, that the village soviet chairmen of 1931 are only a special case of a more comprehensive paradox. It seems that in Russia it is quite customary for the agricultural population to elect representatives who are opposed to their own interests. Only this can explain the fact stated in this chapter that up to 1927 the Government acted only in the interests of " the urban or industrial manual-working wage-earners," that is, of about 15 per cent. of the population. Later on, it is true, at least one class of the peasants seems to have become more mindful of their interests or more enlightened in the choice of their representatives, for " since 1928 the Government may be deemed to have in view also the interests of the kolkhosniki, the owner-producers in agriculture who have joined together in collective farms." The reader, bearing in mind the events of 1929-1932 to which I referred before, will ponder on the carefully chosen words " may be deemed to have in view " in this curious passage, and he might wonder whether the " interests of the kolkhosniki " are meant to be distinguished from their *wishes*, and if not, what would have become of the Government if the wishes of the kolkhosniki of 1929-1932 had been fulfilled.

But whatever may be the reader's reflexions on these points, one thing appears clearly to him both from the history of Collectivisation,

as told by the authors, and from the last quoted passage, namely, that the Government has at all times, strongly opposed the interests of the the individual peasants, whom they subjected to detrimental taxation (p. 116) and other discriminating measures. Yet on page 725 he finds : " Adhesion to the collective farm is entirely voluntary." So he again feels much puzzled.

The reader comes across more paradoxes if he examines the authors' favourite argument in proof of free speech in the U.S.S.R. : " It may surprise those who assume the existence of a dictatorship, and deny that of free speech, to learn that, for nearly three years (1925-1928) the issue [of agricultural policy] was the subject of heated public controversy in articles, pamphlets and books, widely circulating in large editions, as well as prolonged committee debate in the Central Executive Council and within the Communist Party " (pp. 242-243). The argument is repeated in various forms on pages 348, 367, 448 and 1099.

But can, the reader will wonder, the struggle between Stalin and Trotsky, ending at the close of 1927 with the victory of the former, be adduced as an illustration of common usage in present-day Russia ? The fact reported on page 619 that immediately after the close of the debate Trotsky and hundreds of his followers were exiled to remote parts of the land and that, as we know from other parts of the book, later on most of the others who stood on the losing side of that debate lost their life or their liberty at the hands of the secret police, must certainly discourage the present-day Russian to look upon that debate as a precedent on which to base his claim to free speech ; the more so, since it seems that the Soviet Government does not at all wish it to be considered in such a light. An official publication of 1933, quoted by the authors, refers to the debate in the following terms : " The Five-Year Plan was born in the midst of a fierce class struggle around the question of the main roads [or] means of socialist construction. Notwithstanding the counter-revolutionary resistance of the Rights and the Trotskyists, the Communist Party and the Soviet Government adopted the Five-Year Plan.." (p. 621). What the authors ask us to consider as a typical example of a free debate, the Soviet publication quoted by the authors calls " class war " and " counter-revolution."

But even the authors themselves seem unable to make up their minds on this matter. While a footnote on page 1100 explains that it was only the persistence of Trotsky in his factious conduct after the

Party decision of December 1927 which led to his persecution, the " Index of Persons " attached to the book states that Trotsky " after Lenin's illness became persistently in opposition to the Party policy and was transferred from Commissariat of War to that of Transport; expelled from Party 1927, and exiled to Alma Ata " (p. 1159). Since " opposition to Party policy " is equivalent to " counter-revolutionary resistance " this passage condemns as strongly as the Soviet source quoted before the use which Trotsky made of the alleged right of free speech and it contradicts flatly all the previous arguments of the authors on this matter.

The puzzled reader wonders that the authors should quote this so doubtful example of the exercise of free speech no less than five times, giving not a single other case of a public discussion on important political matters. Supposing that it is the only example they know, how can they venture to use it at all?

Another little example of the method by which the authors assimilate a piece of evidence to their main argument that the U.S.S.R. is not a dictatorship but enjoys freedom of thought and expression is found on page 435. We read: " It is not easy to get hold of copies of the pamphlets surreptitiously circulated in opposition to the present Government of the U.S.S.R." Then follows a list of objections made by one of these pamphlets, and the following conclusion is drawn: " It will be seen that these criticisms of the U.S.S.R. Government are exactly parallel in substance and in form with those that are made by a Parliamentary opposition to the policy of a Prime Minister in a Parliamentary democracy. They do not reveal anything peculiar to a dictatorship as such."

It is not the fact that criticism, which would be freely admitted in a democracy, can be circulated only surreptitiously in Russia that appears significant to the authors; the conclusion which they draw is that there is no dictatorship because it is not mentioned in the pamphlet. The writer of the pamphlet, they imply, had no objection to be threatened by imprisonment or execution, since he makes no statement to the contrary.

I will conclude my demonstration of the authors' inconsistencies (which could be continued indefinitely) by showing how the main outlines of the actual political system of the U.S.S.R., so unlike the picture which the authors try to impress upon us, can be made perfectly clear by collecting some of their own statements.

We read: " There can be no doubt that Stalin correctly described

the situation when he referred to ' the supreme expression of the guiding function of our Party. In the Soviet Union, in the land where the dictatorship of the proletariat is in force, no important political or organisational problem is ever decided by our soviets and other mass organisations, without directives from our Party. In this sense, we may say that the dictatorship of the proletariat is, substantially, the dictatorship of the Party as the force which effectively guides the proletariat ' " (p. 370). The method by which the Party, which, we are told, includes 3 per cent. of the voters, exercises its rule is also described : " The highest governing bodies in all these hierarchies are found to be almost wholly composed of Party members " (p. 353). " The Party members who are office-bearers, and who are all pledged to complete obedience to the dictates of the Party authorities, have assumed as their main vocation the supreme direction of policy and the most important parts of its execution, in every branch of public administration in the U.S.S.R., where public administration covers a much larger part of the common life than it does in any other country " (p. 354). Even out of office we hear that a Party member " on announcing his Party membership, will usually be able to secure obedience, or, if not, he can command any militiaman (police constable) or local official to take action " (p. 355).

In the last resort the Party dictatorship relies on the ruthless use of the armed forces, including the secret police : " It can be inferred that it was actually expected that to carry to completion the new agrarian revolution would involve the summary ejection from their relatively successful holdings, of something like a million families. Strong must have been the faith and resolute the will of the men who, in the interest of what seemed to them the public good, could take so momentous a decision " (p. 563). These men certainly showed supreme faith in the police. We might, therefore, agree that " without the G.P.U. there would be no Communist Party in Russia today, no Union of Socialist Soviet Republics."[1]

The Party exercises the legislative powers through two alternative channels. Firstly, as already stated, they secure for themselves the majority of the seats in the higher representative bodies. For example : " At Moscow in 1931 it was they who saw to it that two-thirds of all the candidates who survived to the final votes belonged to the all-powerful communist organisation " (p. 46). Secondly, since 1928

[1]From a statement quoted on p. 586 as coming from " a foreign resident of candour and experience."

legislation is more frequently enacted simply by orders of the Central Committee of the Party, which " does not limit its intervention in the government of the U.S.S.R. to what may be considered legislation, even in its widest sense " ; but also " is perpetually directing the executive work of the far-flung Party membership " (p. 370).

The real power resides with a small Committee called Politbureau (p. 366). In the Politbureau the influence of Stalin is dominant. On account of the " Adulation of the Leader," referred to on page 439, " he may be thought to have become irremovable from his position of supreme leadership of the Party, and therefore of the government " (p. 438).

The rules of the Party require that " once any issue is authoritatively decided by the Party, in the All-Union Party Congress or its Central Committee, all argument and all public criticism, as well as all opposition, must cease " (p. 348). Since changes of policy cannot be discussed without criticising the accepted policy, it follows that no important political discussion whatever is permitted.

Thus the simple and well-known truth emerges that the U.S.S.R. is ruled by the Communist Party, under the orders of the Politbureau which is dominated by the unassailable power of Stalin. Had the authors started off from these facts instead of trying to submerge them in a flood of argument on freedom and democracy, they would have, no doubt, arrived at a more consistent and intelligible account of the political system of the U.S.S.R.

Next to the political system of the U.S.S.R. to which the greatest part of the book relates, the system of socialist economy is its most important subject. It is, however, impossible to understand from their book how this system works, since the authors do not tell us how outputs and prices are fixed. We are told that " Gosplan has to compare the aggregate expected demand for each commodity or service......with the amounts that the productive enterprises are severally proposing to turn out..." (p. 629). We might expect these two quantities to be different in general ; but we hear nothing of the principles by which the decision is taken between the two possible alternatives by which their disparity can be bridged : to change the output or to adjust the price. Since the authors give no consideration to this question, and, especially, do not mention pricing at all, their account leaves the reader completely in the dark as to the economic mechanism of the U.S.S.R.

On the factual side the book is equally deficient. It is written—

as are, for example, pages 650-657 on the results of planning—in the form of an enthusiastic catalogue of disconnected items without even an attempt at a statistical analysis of the crude data. Students wishing to find out facts on any particular subject, let it be taxes, wages prices, housing, morbidity or education will find that the material presented is so full of gaps, so crude and so vague in its foundations as to be of little help to them for any serious study on the subject.

In the chapter on " The Good Life " we are told that the enterprise of the Soviets is like the undertaking of a great engineering work of uncertain success. " Whilst the work is in progress any public expression of doubt, or even of fear that the plan will not be successful, is an act of disloyalty, and even of treachery, because of its possible effect on the wills and on the efforts of the rest of the staff " (p. 1038). I cannot remember any engineering project from the Suez Canal to the flight of the Graf Zeppelin or the draining of the Zuider Zee during which the public expression of doubt was made a capital offence, or was not, indeed, quite customary. The great feats of civilisation have not been accomplished by dictatorial efficiency nor have they needed for their protection that atmosphere of enthusiasm combined with panic which is supposed to be required for the creation of the conditions of " The Good Life."

It is deeply regrettable that the authors make it their task to discover new arguments for the protection of governments stampeding their peoples into " The Good Life "—against the interference from those who seek the truth. Such sacrifice of the intellect benefits all dictators equally, and on balance amounts to an injection of more venom into the issues of Europe's civil strife.

If such philosophy prevails there is little hope that the admirable advice given to both the economists of the U.S.S.R. and those of the western world " that the reciprocal ignoring of each other's studies and the reciprocal contempt for each other's arguments is, on both sides, unworthy of what should be a matter of serious common investigation " (p. 675), will gain acceptance. Still less can we hope for that reconciliation of rival social doctrines which alone can save Europe from dissolution. Such an aim can only be attained by tolerance, that is, restraint imposed by those who seek the truth on governments bludgeoning their peoples into Goodness.

Many thinkers today do not believe in truth ; of those who do, few consider it to be right to tell the truth regardless of political consequences ; thinkers have thus forfeited their right to restrain

governments in the name of truth. Unless intellectuals make a new departure, inspired by unflinching veracity, truth will remain powerless against propaganda.

M. Polanyi

Trends in Retail Distribution in Yorkshire (West Riding), 1901-1927

THE growth in the volume of employment in the distributive trades, the rigidity of retail costs, and the visible development of new shopping centres have led to the assertion that the number of distributive units is too large, that many of them are too small for economical working, and that the rate of growth is "excessive." It is necessary to draw a sharp distinction between the provision of shops and the provision of shopping facilities. To measure the latter, even if we leave out of account the volume of turnover, numbers employed, etc., and confine ourselves to the physical unit, would involve tracing the changes in floor space and perhaps the rateable value of shops over a period of time, an obviously impossible task. It is clear that any proposal designed to remedy an excessive number of shops may be useless if the trouble is excessive shopping facilities. As there seems to be a tendency in some trade circles, when discussing proposals to license shops, to shift the argument from one ground to the other, the point is not without importance. This article is concerned with the number of shops.

It has already been shown, in respect of twelve towns in England and Wales, that between 1901 and 1931 the total number of shops barely kept pace with population, that they had increased in trades where consumption was increasing, and decreased in certain staple trades; and that between 1921 and 1931 there was also a tendency to increase, as a result of the decentralisation of urban population, in those trades where frequency of purchase and other factors made shops near at hand convenient and necessary.[1] These tendencies may operate at different dates and with varying force in different parts of the country, while the circumstances of very large towns and small urban centres may differ considerably. It was therefore worth while testing the general conclusions by investigating a large area containing urban populations of widely different sizes and rates of growth, and the West Riding seemed suitable for this purpose.

An investigation of this sort, based as it must be on data given by directories and not now open to check, is a difficult and somewhat exacting task, and it is important not to overlook the limitations to

[1] *Economic Journal*, Sept., 1935 and June, 1936.

which it is subject. The definitions of separate trades have been kept as constant as possible, but in retailing as in other industries, the representative firm may split up into more specialised units, the range of products dealt in by some trade being altered, in spite of an unchanged name. It is, as we shall see, sometimes possible to check this. The difficulty of the " mixed business " occurs in all towns, but mostly in the small ones, where the combination of two lines of trade, such as greengrocery and fish, is more common. It is sometimes possible to limit the error, though one cannot go beyond the statement of the directory if the owner of such a business has declared himself as following one line of business only. Again, the errors in the directories are more likely to be those of omission, and if there is any variation in this over a period of time, it is more likely that the defects would be greater in the earlier years. If so, the figures in the table below will understate any decline in the number of shops, and overstate an increase, a form of error which tends to strengthen the general argument rather than weaken it. Whatever precautions against these difficulties are possible have been taken, and it is believed that the figures are sufficiently sound to allow us to draw safe conclusions as to the broad movements. The dates of available directories do not correspond completely with those of the Census and some adjustment had to be made with respect to population and families. In the aggregate for each group, any error due to this cause is not of such magnitude as to affect the general trend of the figures.

The towns were grouped as follows :—

Group A. Those over 75,000 population. Leeds, Sheffield, Bradford, Huddersfield, Halifax.

Group B. Those with 20,000 and under 75,000 population (17 towns).

Group C. Those with 10,000 and under 20,000 population, together with one or two just under 10,000 (36 towns).

The results are set against those of the general investigation into the twelve English and Welsh towns.[1] It should be noticed, however, that the dates for the general investigation were the Census dates, with the exceptions indicated in the published tables.

The tables are mainly self-explanatory. Figures are given for four types of trades, and for the total of shops of all kinds. We may conclude that with certain exceptions, the same broad generalisations

[1] Bolton, Bradford, Huddersfield, Hull, Middlesbrough, Norwich, Cardiff, Bournemouth, Poole, Portsmouth, Southampton, Reading.

can be made of the West Riding, as of the towns of the general sample. In particular, they emphasise the uselessness of discussing shops in general, and bring out the fact that each trade has its separate history. There are two striking differences. Whereas in the English and Welsh towns the large modern bakery has grown at the expense of numerous small ones, in the West Riding there has been a relative increase in the number of bakeries. One may suggest that the decline of home baking, long dead in the south, is the most probable explanation. Again, while in the country as a whole the relative number of tobacconists has increased, there has been a decrease in the West Riding. Some question has been raised as to whether the relative decline in the number of drapers is really representative of the facts, since the trade has somewhat changed its character and part of it is now conducted in specialised shops, such as blouse and gown dealer's. Unless the later figures of the series are to be out of touch with the current meaning of trade description, it is necessary to adhere to the contemporary meaning, even though this may exclude some specialised lines of trades which have now an independent life of their own. "Drapers" here means people who so describe themselves. But even if we make a general category of drapers, haberdashers, milliners, gown dealers, costumiers, ladies' and children's outfitters, blouse specialists and furriers, it still remains true for the English and Welsh towns that there was a very slight decline (just over 1%) in the number of shops as compared with the population, and a decrease as compared with the number of families (nearly 12%), though in some towns there is some increase as compared with population.

There are many who feel that the problem of rigidity of distributive costs and the wide margin between producers' prices and consumers' payments needs more attention. Sometimes an increase in the number of shops may raise costs, such growth being due merely to the desire of the public to live in the outer rims of towns ; it is the price we pay for " dispersed " living. In other trades, as the figures indicate, the problem lies not in an increase in the numbers of shops, which have remained relatively constant or even decreased, but in the increase of shopping facilities, which involves, amongst other things, larger physical units, more workers, etc. In such cases a limitation of the number of shops, so far from restricting competition, might merely divert it from one channel into others. The number of shops is only one item of a considerable number upon which we need more information, including size, turnover, profits, location and walking distance,

grades of consumers, etc. A thorough census of distribution is needed, and if it is to be useful, it will involve a considerable willingness on the part of the retailers to give adequate information. In the meantime, one immediate step could be taken. The local authorities inspect shops as part of their duties under the Shops Acts, and some of them keep a list of shops inspected during the year. If they would keep a complete register of shops, based on uniform definition, with little expense we should have a continuous record of changes in the number of shops in the different trades.

CHANGES IN THE NUMBER OF SHOPS IN THE WEST RIDING, 1901–1927

ALL GROUPS: 1901 = 100

NUMBER OF SHOPS IN 1901 IN BRACKETS ( )

	Per 1,000 Families				Per 1,000 Population			
	1901	1912	1922	1927	1901	1912	1922	1927
I. GROCERS								
Group A ..	100 (13·7)	87	83	71	100 (3·34)	83	81	77
B ..	100 (10·6)	87	80	82	100 (2·22)	96	89	99
C ..	100 (11·2)	84	76	73	100 (2·23)	94	86	86
All Groups ..	100 (12·7)	87	87	72	100 (2·89)	87	83	82
E. & W. Towns	100 (12·9)	87	74	75	100 (2·84)	90	83	85
GROCERS AND "SHOPKEEPERS"								
Group A ..	100 (25·2)	93	88	80	100 (6·12)	88	86	87
B ..	100 (24·2)	85	80	78	100 (5·06)	92	88	83
C ..	100 (22·5)	92	83	86	100 (4·48)	102	94	101
All Groups ..	100 (24·6)	90	85	80	100 (5·61)	91	87	90
E. & W. Towns	100 (21·8)	94	75	79	100 (4·80)	97	85	90
BAKERS								
Group A ..	100 (1·20)	71	63	108	100 (0·29)	66	59	121
B ..	100 (0·80)	96	94	110	100 (0·17)	106	100	129
C ..	100 (0·85)	92	88	106	100 (0·17)	100	100	135
All Groups ..	100 (1·07)	76	70	108	100 (0·24)	75	71	121
E. & W. Towns	100 (2·98)	80	71	82	100 (0·64)	83	81	92
BUTCHERS								
Group A ..	100 (7·28)	78	72	78	100 (1·77)	74	70	85
B ..	100 (7·67)	85	65	71	100 (1·60)	94	73	86
C ..	100 (7·83)	88	59	65	100 (1·53)	109	69	78
All Groups ..	100 (7·45)	82	68	74	100 (1·69)	82	71	83
E. & W. Towns	100 (6·75)	88	60	73	100 (1·49)	91	68	83
II. DRAPERS								
Group A ..	100 (4·96)	94	107	95	100 (1·21)	89	103	103
B ..	100 (5·80)	78	74	77	100 (1·21)	84	83	93
C ..	100 (5·18)	77	70	74	100 (1·03)	86	80	87
All Groups ..	100 (5·17)	87	92	87	100 (1·18)	88	86	98
E. & W. Towns	100 (4·41)	88	83	78	100 (0·97)	92	94	89
CHINA & GLASS DEALERS								
Group A ..	100 (0·91)	65	59	41	100 (0·22)	64	59	46
B ..	100 (0·66)	80	71	65	100 (0·14)	86	79	79
C ..	100 (0·79)	63	48	37	100 (0·16)	69	56	44
All Groups ..	100 (0·84)	67	60	44	100 (0·19)	68	58	53
E. & W. Towns	100 (0·86)	70	63	49	100 (0·19)	74	68	53

	Per 1,000 Families				Per 1,000 Population			
	1901	1912	1922	1927	1901	1912	1922	1927
Pawnbrokers								
Group A ..	100 (0·98)	103	88	66	100 (0·24)	100	83	71
B ..	100 (0·61)	85	79	64	100 (0·13)	85	85	77
C ..	100 (0·51)	81	90	71	100 (0·10)	90	100	80
All Groups ..	100 (0·84)	100	84	65	100 (0·19)	100	84	74
E. & W. Towns	100 (0·83)	81	74	51	100 (0·18)	83	83	56
III. Chemists								
Group A ..	100 (1·27)	99	100	99	100 (0·31)	94	97	110
B ..	100 (1·47)	86	82	74	100 (0·31)	94	90	90
C ..	100 (1·25)	114	86	86	100 (0·28)	114	86	93
All Groups ..	100 (1·33)	96	93	90	100 (0·30)	97	95	101
E. & W. Towns	100 (1·48)	92	79	101	100 (0·33)	94	88	115
Tobacconists								
Group A ..	100 (3·13)	72	71	48	100 (0·76)	69	70	62
B ..	100 (2·19)	68	58	55	100 (0·46)	74	63	65
C ..	100 (1·63)	58	49	41	100 (0·32)	66	57	50
All Groups ..	100 (2·72)	69	64	50	100 (0·62)	69	66	57
E. & W. Towns	100 (2·72)	89	88	100	100 (0·60)	88	100	115
Newsagents								
Group A ..	100 (2·32)	88	74	82	100 (0·56)	84	73	91
B ..	100 (1·33)	117	111	114	100 (0·28)	118	121	138
C ..	100 (1·06)	126	109	114	100 (0·21)	143	124	133
All Groups ..	100 (1·94)	94	81	88	100 (0·44)	96	84	100
E. & W. Towns	100 (2·05)	95	78	93	100 (0·55)	98	87	104
IV. Confectioners (Sweet)								
Group A ..	100 (5·16)	103	120	112	100 (1·26)	96	114	122
B ..	100 (4·41)	104	119	127	100 (0·92)	111	133	155
C ..	100 (3·69)	112	118	124	100 (0·74)	124	132	146
All Groups ..	100 (4·80)	102	128	116	100 (1·05)	106	123	136
E. & W. Towns	100 (4·30)	131	124	169	100 (0·93)	134	142	188
Fried Fish Dealers								
Group A ..	100 (1·89)	206	192	216	100 (0·49)	186	174	225
B ..	100 (2·11)	135	135	165	100 (0·44)	150	150	198
C ..	100 (1·36)	204	164	233	100 (0·27)	230	185	278
All Groups ..	100 (1·86)	188	172	205	100 (0·44)	182	171	223
E. & W. Towns	100 (1·18)	229	203	244	100 (0·26)	235	227	277

	Per 1,000 Families				Per 1,000 Population			
	1901	1912	1922	1927	1901	1912	1922	1927
Opticians								
Group A ..	100 (0·19)	100	116	153	100 (0·05)	96	113	167
B ..	100 (0·12)	133	150	258	100 (0·03)	140	168	312
C ..	100 (0·01)	393	500	829	100 (0·003)	367	533	900
All Groups ..	100 (0·16)	100	114	181	100 (0·04)	106	123	194
E. & W. Towns	100 (0·21)	102	143	186	100 (0·05)	107	140	200
V. **All Trades**								
Group A ..	100 (87·7)	92	90	85	100 (21·4)	87	88	92
B ..	100 (79·7)	88	85	86	100 (16·6)	97	95	104
C ..	100 (69·8)	78	51	82	100 (13·9)	85	58	97
All Groups ..	100 (83·6)	88	83	84	100 (19·1)	89	85	94
E. & W. Towns	100 (87·6)	94	83	89	100 (19·3)	97	93	100

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P. FORD *and* G. V. WHITE

Workers in a Lancashire Factory at the Beginning of the Nineteenth Century[1] (continuation).

As the book-keeper at Burrs Mill did not appreciate the opportunity he had to leave details which would have enabled the economic historian to construct family budgets, the entries on the debit side of the wage book leave much to surmise. Three items, entered every pay day, were rent, shop goods and cash. At irregular intervals entries were made relating to " notes," or to some article which had been bought from or through the firm. It is from this information that an attempt has been made to form some idea of the domestic economy of the households concerned.

In every case the rent was 1/3 a week, but occasionally, for short periods, the firm allowed families that were in difficulties to pay only half the rent. The accommodation provided consisted of a two-roomed dwelling in a row of twenty back-to-back cottages. These were built by the firm and were still in existence a few years ago, though no longer habitable. They had no gardens, but this was not a serious defect in view of their situation in a valley which, despite the growth of Bury, still preserves pleasantly-wooded hills and a river that is probably less attractive today than it was 135 years ago.

Inside the cottages four walls and a fireplace seem to have sufficed for domestic arrangements. Water must have been obtained from the river or from a neighbouring spring, and it is unnecessary to say that no provision was made for the disposal of household slops and refuse. Apparently the ground formed the floor of the lower room in each house, for there are no traces of bricked or flagged floors in the houses that still stand. The upper room was reached by a wooden staircase and was the same size as the lower room.

An item which appears regularly, except in the case of those employees who were paid in cash, relates to " shop-goods." These were goods purchased at the shop owned by the firm, but their nature is not specified. It is probable that they were groceries, for other articles were entered separately, and, if the amount spent in 1801 is compared with the amount spent in 1802, it is clear that the goods

[1]For previous article see *The Manchester School*, April 1936

bought must have been the absolute necessaries of life. The other commodities bought from the firm were sheets, prints, coal, potatoes (during the dearth of 1801) and meat (during September, October, November and December of each year).

The amount received in cash varied considerably and there is no clue to the way in which it was spent, but the next item, notes, is more informative. These notes, which were issued to the employees by the firm enabled them to purchase goods on credit from the shopkeeper to whom they were made out, the debt thus being guaranteed by Peel, Yates and Peel. The account was then collected on the instalment system, by a small sum being stopped out of wages and paid to the tradespeople every fortnight. There is sufficient evidence to make it clear that the articles purchased in this way were the household goods which are needed to make a home: the pots and pans, blankets, clothes, shoes, and possibly furniture—things within reach when food was cheap, but expenditure on which was cut down to a minimum in times of scarcity.

The names of sixteen shopkeepers appear in the wage book and if we knew what goods they sold we might hazard a guess as to the way the money was spent. In the case of three of them it is possible to discover this: with a bootmaker a brisk trade was carried on; a butcher appears in the accounts at infrequent intervals and for small amounts; and there are many entries under the name of "Grant." Mr. Grant was a draper (a fact which is known because his sons had a remarkable industrial career and were immortalised by Dickens as the Cheeryble Brothers[1]), and it is interesting to see what humble customers helped to lay the foundation of the Grant fortune.

In the following table the amounts debited against twenty families and the amounts received in cash have been taken from the wage book covering the six months January-June, 1801. The figures show the weekly average of the purchases at the shop, the rent paid and the cash received. In the case of the notes and of the miscellaneous expenditure (including subscription to the funeral club), the figures are aggregates for the whole period, since these items are irregular in appearance and in the six months were for quite insignificant amounts:

[1]The history of the Grant family is told in *The Country and Church of the Cheeryble Brothers* (W. H. Elliott); *The Story of the Cheeryble Grants* (W. H. Elliott); *History of Borough of Bury* (B. T. Barton).

JANUARY—JUNE, 1801

Family	Number of Workers	Weekly Average			Total	
		Shop	Rent	Cash	Notes	Miscel-laneous
Brierley ..	5	19/2	1/3	13/3½	36/–	12/9
Crossley ..	5	25/9	1/3	7/8	62/10	29/6
Brooks.. ..	5	19/11	1/3	2/8	31/11½	28/6
Pollitt	5	19/7¾	1/3	6/4½	—	16/9
Barlow.. ..	5	22/5	1/3	5/4½	118/8	20/4
Wood	5	11/9	7½d.	3/4¾	177/–	14/6
Cook	4	12/1	1/3	4/4	12/6	21/7
Haworth ..	3	6/10	1/3	1/7	12/–	12/6
Nuttall.. ..	3	9/5½	—	6/2	5/5½	9/–
Heap	3	10/–	1/3	1/–	4/3	3/–
Crossley ..	2	9/8	7½d.	11/2½	14/1	10/–
Booth	3	8/6	7½d.	3/7	13/2	1/6
Kay	4	17/6½	1/3	6/2½	—	12/9
Hall	3	7/9	—	1/4	1/6	2/–
Holt	2	12/2	—	2/10½	11/3½	8/6
Wood	2	6/6½	1/3	3/2½	42/8	14/7
Wilkinson ..	2	5/1	—	2/3½	236/10	11/10½
Chadwick ..	4	14/2	1/3	—	2/10	7/6
E. Holt ..	4 for 3 months then 3	7/3	7½d.	3/3	15/10	13/7
Taylor.. ..	2	10/2	—	8/–	19/2	16/9

Although in the majority of cases there is no proof that the income earned at the mill constituted the whole income of the family, one fact is very clear : with few exceptions a large proportion of the wages earned was being spent at the firm's shop on groceries.

The table must be considered in the light of the conditions which prevailed in the country generally in the early months of 1801. After two years of scarcity England was suffering from a food shortage which raised prices to almost famine level. The severe winter of 1798-9 had been followed by a failure of the harvest ; and heavy rain in August, 1800, had ruined half the crops of what had promised to be a plentiful harvest. The prices of wheat, barley and oats rose rapidly from May, 1799, and, after a slight fall in July and August, 1800, reached the maximum in March, 1801. The prices per quarter of the staple cereals during these years of famine were as follows :

	1799		1800			1801			1802
	May	Dec.	June	Aug.	Dec.	Mar.	June	Dec.	
Wheat	61/8	94/2	134/5	96/2	133/–	156/2	129/8	75/6	57/1
Barley	35/–	45/5	69/1	54/3	76/7	90/7	59/7	44/–	25/7
Oats	29/4	33/3	5?/1	35/9	41/8	47/2	37/2	23/4	20/–

Flour and oatmeal were, of course, the principal articles in the diet of the working classes, but there were many other commodities that would be bought by every housewife until the family consumption had to be cut down to the lowest level of subsistence. This point was never reached by families of the factory workers at Burrs Mill, although their grocery bills absorbed a large proportion of the incomes at this time. In the pamphlets written during 1800-1801 explaining, or suggesting remedies for, the scarcity, there are many references to the rise in the cost of all articles of general consumption, but unfortunately the writers do not give any detailed facts about prices. We know, however, that butter, cheese, meat, sugar, tea, salt and potatoes increased in price during those years, whether from the great demand for foodstuffs to supplement the scarce and expensive cereals, or because of increased taxation.

In an account book kept by the Sutton Poor House during 1797-8 and the early months of 1799 there are several lists of the prices of these articles before the scarcity. To judge from the size of its grocery orders the institution must have been on a very small scale, and probably would not have any considerable advantage in making its purchases, so the prices given may be considered a fair sample of those paid by working-class households. A comparison with the prices of similar commodities in 1800-1801 given in Rowbotham's MSS. *Annals of Oldham*[1] makes it clear that, in the absence of an upward movement in the rate of wages, the high prices must have involved a great deterioration in the standard of living. The next table gives the prices of ordinary household goods before, during, and after the scarcity :

[1] I am indebted to Miss E. Lees for the prices from Rowbotham's MSS.

	1797 Jan.	1798 Jan.	1799 June	1800 May	1801 Jan.	1802 Jan.
Meat, peck ..	1/4	1/3	1/6—1/9	4/6—4/9	4/4—4/10	2/-—2/4
Flour ,, ..	1/8	1/3	1/1—2/-	4/6—4/8	5/4—5/8	2/8—2/10
Potatoes, score ..	-/6½	—	-/5	1/8	1/8	-/6
Old Butter, lb. ..	-/9	-/8	-/9	1/3	1/3	-/9
New Butter, ,, ..	1/-	1/-	1/-	—	—	—
Cheese, ,, ..	-/6	—	-/5½	-/9	-/9	-/6
Sugar, ,, ..	-/10	-/10	-/10	—	—	-/10
Tea, oz.	-/4	-/4	-/4	—	—	—
Treacle, lb. ..	-/5½	-/5½	-/5½	—	-/7	-/4½
Beef, ,, ..	-/4	-/4	-/4½	-/9	-/8	-/8½
Mutton ,, ..	-/5	—	-/5	—	-/8	-/9
Pork ,, ..	-/4½	—	-/4½	—	—	-/9½
Veal, ,, ..	—	—	-/3	-/7	—	—
Bacon, ,, ..	—	—	-/8	-/10½	—	-/10
Candles, ,, ..	-/9	-/9	—	—	-/9	-/9
Salt, ,, ..	-/1½	-/1½	-/3	—	—	—
Soap, ,, ..	-/9	-/8½	-/8½	—	-/9½	-/8
Tobacco, oz. .	-/2½	-/2½	-/2½	—	—	—
Beer, pint ..	—	—	-/1	—	—	—
Ale, ,, ..	—	—	-/3	—	—	—

Attempts were made to relieve the shortage by growing potatoes, with the result that the price of these fell from an average of 15/6 a load in 1800 to 6/- a load in the autumn of 1801. In March and May, 1801, after they had been 1/8 a score for ten months, Peel, Yates and Peel sold potatoes to every employee in their mill. The quantity is not stated but the price was usually 6/9, and as potatoes averaged 6/- a load at the close of the year, the 6/9 charged from March onwards was almost certainly for a load. In the following year, when the crisis was over, the firm ceased its supplies.

The effect of the fall in prices on the household budgets of twelve of the families employed in the mill is given below :

	January—June, 1801				January—June, 1802			
	Weekly Average			Total	Weekly Average			Total
	Income	Shop	Cash	Notes	Income	Shop	Cash	Notes
Crossley ..	38/-	25/9	7/8	62/10	41/4½	18/-	19/8	61/8½
Brooks ..	26/6	19/11	2/8	31/11½	40/2	15/9	18/6	95/2
Barlow ..	34/3	22/5	5/4½	118/8	40/7	16/6	16/11½	189/10½
Wood ..	23/11	11/9	3/4½	177/-	28/5	9/6	9/7	202/11
Cock ..	19/2	12/1	4/4	12/6	16/1	6/6½	5/11	23/10
Haworth ..	9/1	6/10	1/9	12/-	12/10	6/8	1/11½	90/4
Nuttall ..	16/4½	9/5½	6/2	5/5½	22/6	6/1½	13/-	51/5
Heap ..	12/3½	10/-	1/-	4/3	22/5½	8/8	3/11	152/3½
Booth ..	13/3	8/6	3/7	13/2	13/5½	4/7½	7/4	31/4
Wilkinson	16/1½	5/1	2/3½	236/10	18/9½	1/8½	4/4	287/3½
Chadwick	14/4½	14/2	—	2/10	15/4	11/8	1/6	25/-
Brierley ..	35/9	19/2	13/3½	26/-	16/8	5/10½	9/11	41/1

The twelve families have been chosen at random, and in every case the proportion of the income spent at the shop is much smaller during January-June, 1802, than in the same months of the previous year. Moreover, the increase in the number and value of the notes paid off speaks of greater prosperity, of houses better equipped and people better clothed.

FRANCES COLLIER

Reviews

The London Mason in the Seventeenth Century. By Douglas Knoop and G. P. Jones. (Manchester: The University Press. 1935. 5s. net.)

It was perhaps fitting that the greater part of the cost of rebuilding St. Paul's and the fifty other London churches after the Great Fire should have been raised from duties on Newcastle coal, for the introduction of coal fires was undoubtedly responsible for the sudden disappearance of many a medieval and XVIth century timbered structure. As early as 1618 one diastrous fire in Whitehall provided Inigo Jones with the opportunity of rebuilding the Banqueting House and had the more immediate effect of stimulating the activities of a royal commission for new buildings, an early and, as events proved, pathetic example of obstructive and unenlightened town planning. Despite spasmodic official discouragement—for both Cromwell and James II attempted to tax new buildings in the capital, and after 1662 they served as a basis of assessment for the city rates—seventeenth century London offered unique opportunities for the mason's craft.

In the present volume, Professor Knoop and his colleague are mainly concerned with the rebuilding of the city after 1666 and, more particularly, with the churches and public works; the records of the Masons' Company which they have drawn upon do not apparently throw much light on the extensive domestic architecture of the period. Perhaps the most significant thing which emerges is the fact that most of the rebuilding was done by immigrant country labour working for contractors. Four-fifths of the work on St. Paul's, for example, was "carried out by contractors of country origin and training." We are introduced to some of these for the first time, the Strongs, father and son, the Kempsters, Marshalls, Gilberts and Wises, and the thumb nail biographical sketches which are given of them will prove most useful. Nearly all of these men had earlier interests as quarry owners either in Oxfordshire or Purbeck. It is the rise of these mason contractors and the disappearance of the "direct labour" system, common in the Middle Ages, which the authors especially stress, though the survival of the earlier tradition in the Office of Works was clearly

important once the Crown found itself in a more healthy financial position. However, the Masons' Company took advantage of the trade boom to consolidate its position. Already in Elizabeth's reign, it had swallowed the Marblers (some few of whom later attained prominence), and even before the Fire it had raised the fees of admission so that less than half the apprentices were eventually admitted to the company. Finally, in 1677, it obtained a charter of incorporation, on the strength of which it proceeded to conduct "general searches," punish faulty workmanship and prosecute non-mason interlopers. But the monopoly interests of the company did not always coincide with those of the city authorities, especially the Chamberlain (the treasurer) and the company was obliged, on occasion, to bow to outside pressure. Within the craft the authors find as yet little differentiation between "hewers" and "layers"; on the other hand, in London at least, there was increasing separation of functions as between architect and master-mason.

How the big contractors met their weekly wage bill is a problem that defies solution. The standard wage of a mason in the Restoration period was unusually high, half a crown a day. The official salary of Sir Christopher Wren, I find, was no more, while a mason employed in the Office of Works in 1693 received only a shilling a day. As contractors had frequently to wait long periods for payment, they might at any time be driven to a temporary or permanent suspension of work. This no doubt helps to explain the protractedness of many of the jobs, and at no time do contractors seem to have had great numbers of masons in their yards. Benjamin Jackson, a London mason who built Chatsworth, met with unusual difficulties at the hands of the Duke of Devonshire (*H. of Lords MSS.* 1700, p. 125). But until we know more of the cost of timber and lime, and above all of brick, which from the beginning of the century was being used increasingly in house building, any picture of the seventeenth century mason must remain incomplete. What if the belated prosperity of the Masons (as also of the early fire insurance companies) was built on brick and not on stone?

Professor Knoop and Mr. Jones have placed social historians under a further obligation. It is to be hoped that Thriberg and Rufford, Welbeck and Althorp will yield to their hammer and chisel and produce an account of north country craftsmen.

EDWARD HUGHES

Tariff Policy. By O. Paranagua. (Humphrey Milford. Oxford University Press. 6s. net.)

THIS book can be recommended to all who are anxious to obtain a general knowledge of the administration of tariffs. Although the author is a Professor of Economics at Sao Paulo, Brazil, he has obviously made a detailed study of the British, American and European systems. His references are mainly to these and he makes few, if any, references to Brazil and South America. This is a pity since the author might reasonably have been expected to write a little more intimately about those than about European tariffs.

The author was probably right to restrict himself to a discussion of different kinds of tariffs. The theoretical part of the book dealing with international trade is so inadequate that it might well have been omitted, and in the realistic treatment of the reasons for tariffs and of their effects the author can hardly be said to be convincing. The success of this book lies in its lucid descriptive account of the tariff systems of the United Kingdom, the United States and of European countries. But even in this respect the critical reader must not expect too much. The book as a whole gives little evidence of having gone beyond official reports. His account of the British Customs and Excise Duties in force before 1932 summarises the information given in the Balfour Committee's Report on *Factors in Industrial and Commercial Efficiency*. He accepts without question the efficacy of regulating imports of dyestuffs by licences. He dismisses in a few lines the Beet Sugar (Subsidy) Act and the 33⅓ per cent. duty imposed on articles such as fabric gloves under Part II of the Safeguarding of Industries Act. After stating that " in October, 1931, at the general election, the National Government obtained a mandate for the defence of the British market," he describes the introduction of the tariffs in 1932 and the Ottawa Agreements but says little of their effects. At this point his account stops short. He does not discuss in any detail the introduction of import quotas in the Colonies, the conclusion of commercial agreements with foreign countries between 1933 and 1935 or the agricultural marketing schemes.

Professor Paranagua expresses the opinion that the Draft Customs Nomenclature, proposed as a result of recommendation of the World Economic Conference of 1927, is " one of the most valuable results obtained through the initiative of the League of Nations in matters of international trade." Many people will agree with him, but he says nothing of the difficulties of amending existing tariff classifications to

this nomenclature. He ignores also the conflict of interests which must arise through the introduction of an ideal customs nomenclature and through the introduction of an ideal statistical classification. He mentions the Draft Convention proposed at the time of the Geneva Conference of 1928 but not the reports of the Committee of Statistical Experts since 1929.

Enough has been said to indicate the merit and the limitations of this book. It is certain to make a ready appeal to those students of economics and business men who require a brief yet lucid guide to the administration of tariffs.

H. Campion

The Distribution of National Capital. By G. W. Daniels and H. Campion. (Manchester University Press, 1936, pp. 72. 3s. 6d. net.)

The purpose of this book is twofold—to measure the growth of the aggregate of the capital of the persons making up the population of England and Wales between the periods 1911-13 and 1924-30, and to ascertain what changes have taken place in the distribution of that capital. The Inland Revenue reports supply information for both those periods, but " the essential information needed to estimate the distribution of capital for England and Wales has not been collected since 1930." This is a legacy from the economy panic which should be got rid of as soon as possible. Important as are the results obtained by our authors, it is even more urgent to ascertain how far their deductions may be affected by the slump and the partial recovery therefrom. The *basis* of the calculations is quite simple. "A proportion of the owners of capital die, and a proportion of the national capital passes with death each year. These proportions need to be estimated. Their reciprocals can be used to multiply the number and the value of the estates passing each year to arrive at estimates of the total number and value of all estates." We know the numbers, sex, ages, and occupations of persons dying worth more than £100 and the reciprocals of the general mortality rates at each age group for males and females may be used as multipliers. People possessing capital, however, are better " lives" than those without capital, and a correction has to be introduced on this account ; mortality rates have accordingly been calculated on the basis of the mortality rates for the higher of the five social classes into which the population was

divided at the Census of 1921. Minor problems arise out of the calculation of female estates, the inclusion of settled property, evasions, etc., and special difficulties are found in the calculations for 1911-13. When all the troubles relating to estates paying duty have been left behind, the problem of the number of persons with estates of £100 or less and the aggregate value of such estates remains ; estimates have been made in respect of persons aged 25 and over.

All the figures in this little book are significant and so only a few can be selected. The number of males possessing estates of more than £100 increased from 2,952,000 in 1924 to 3,570,000 in 1930, and the number of females from 2,126,000 to 2,658,000 ; the progression was broken in 1927 and 1929 for males and in 1927 for females. In 1911-13 the number of persons with estates over £100 was between 2,500,000 and 2,600,000. Including estates of £100 or less and dealing only with persons aged 25 and over, there were between 16¼ and 16¾ million persons with estates below the taxation limit in 1911-13 and between 17 and 17½ million in 1924-30, while for persons with £100 or more there were between 2,196,000 and 2,527,000 in 1911-13 and between 4,774,000 and 5,284,000 in 1924-30. About 87½ per cent. in 1911-13 and about 77½ per cent. in 1924-30 owned £100 or less. The total capital of persons aged 25 and over was between 6 and 7 million pounds in 1911-13 and between 13½ and 15¼ million pounds in 1924-30. " More than half the total capital in 1924-30 and 1911-13 was owned by persons with more than £5,000 each. The two lowest capital groups (£100 or less and £100-£1,000) include the majority of the population, the capital included being one-sixth of the total in 1924-30." Persons with £100-£1,000 owned from 10.0 to 10.4 per cent. of the total capital in 1911-13 and from 10.4 to 11.1 per cent. in 1924-30 ; persons with £1,000 to £5,000 owned from 15.7 to 16.0 per cent. of the total in 1911-13 and 17.0 to 17.7 per cent. in 1924-30 ; for estates exceeding £5,000 the percentages ranged from 64.0 to 67.0 in 1911-13 and from 66.2 to 68.0 per cent. in 1924-30.

The general conclusions reached by the authors may be summed up in the following passages. " It appears safe to say that the distribution of capital is less unequal than it was before the war. . . . . The scale of wealth has changed from what it was in 1911-13 ; there are more people in each one of the groups over £100. Inequality has been lessened but capital is still very unequally distributed. . . . . Such reduction as there has been in the inequality of the distribution of

capital since before the war is due in part to the change in the age distribution of the adult population during the period. The number of persons has increased more in the higher than in the lower age groups, and the inequality of distribution of capital is also somewhat less in the higher than in the lower age groups." To praise this book would be impertinent, the best compliment one can pay it is to press for the restoration of the abandoned statistics. To continue to do without such information is as wise as it would be for a company to dismiss its auditors under the plan of economy.

H. W. Macrosty

World Dislocation and World Recovery. By Dr. W. H. C. Knapp. (P. S. King & Son. 10s. 6d. net).

The present edition of this book is dated 1935, but the foreword, in which the author thanks his Amsterdam translator, is dated March, 1933. The sub-title is "Agriculture as the Touchstone of the Economic World Events," which explains why the book came before the notice of the committee of the International Agricultural Institute at Rome and was awarded the Humbert-Marie José prize.

As may be expected, therefore, the keynote of the book is that agriculture is the most fundamental industry, not only in the sense that it is basic, and "that approximately two-thirds of the world population are engaged in the cultivation of the soil," but that it is in the conditions under which this industry is perforce conducted that a clear idea can be gained of the operation of the factors which determine economic welfare. The primary condition is the dominance of nature which finds expression in the law of diminishing returns which, with the prevailing industrial technique, and under the forces of free competition, must regulate the remuneration of all other workers. In Dr. Knapp's view a departure from this *natural* course of affairs means the adoption of *artificial* measures, and it is largely because such measures have been adopted that the world is suffering its present dislocation.

That such statements as these should be made at the present day can only be regarded as remarkable, for they inevitably carry us back to the views expressed by the physiocrats and by Adam Smith in the eighteenth century. That they are intended thus to carry us back may be seen in the following quotation from one of Dr. Knapp's

interesting chapters on the period. "Social relations today . . . bear in many respects a marked resemblance to those existing towards the end of the eighteenth century. The mercantile policy of the seventeenth and the eighteenth centuries has been revived and is reflecting itself in protection, subsidies on exports, import duties, monopolies, restricted imports, a yoke of regulations and stipulations, over-estimation of the value of money and money-wages, and preferential treatment of industrial and commercial affairs. And the consequences of the present incorrect views of economic matters are practically the same as they were in those days." Evidently this quotation contains an indictment, the direction of which may be gathered from the implication which runs throughout the book that, if economists had not become too urbanised in their outlook, viewing their problems and seeking solutions for them from the point of view of urbanised industry and commerce, rather than from that of agriculture, such indictment would have been uncalled for.

Naturally, in these days, all this would seem to lead to the conclusion that agriculture should be fostered and protected, but this is not what Dr. Knapp desires. He contends that "the cause of the complaint from which the world is at present suffering so badly is . . . the elimination of free competition in establishing prices in one section of economic life by stabilising wages, salaries, and often also profits," this section being that of urbanised industry and commerce. As Dr. Knapp sees the position, agriculture is in an unfavourable state of disequilibrium with this urbanised industry and commerce and he wishes to see the disequilibrium removed, the chief method being by a prohibition of the stabilisation of prices. Once this is secured his requirement is that free competition should be maintained in every section of economic life.

Much as one may fear that Dr. Knapp sees his problem and its solution in far too simple terms, it is impossible not to recognise his courage in writing his book at a time when maybe only a small minority will be prepared to give due weight to its central teaching.

G. W. Daniels

Planning under Socialism and Other Addresses. By Sir William H. Beveridge. (Longmans. 3s. 6d. net.)

Ways and Means. A Study of the Economic Structure of Great Britain Today. By Geoffrey Crowther. (Macmillan. 4s. 6d. net.)

THE main title of the first of these books is derived from that of the Herbert Spencer lecture which the author delivered in 1935. Besides this lecture the book contains twenty addresses, nineteen of which were broadcast in 1935 by the B.B.C., and an article bearing on subjects touched upon in the broadcast addresses. All these addresses were on current economic events and, therefore, on different subjects, and as most of them had to be compressed within the limits of ten minutes, it might be thought that they were little more than superficial comments on their subjects. Actually this thought would be far from the truth. The present writer had the opportunity of hearing some of the addresses and, at the time, could not help but marvel at how much they seemed to contain, and at how complete they seemed to be. To read the addresses as they are brought together in this book confirms the impressions then formed. Moreover, if comments one heard in casual conversations may be accepted as evidence, there can be little doubt that the addresses brought illumination to many minds, and that they thus served a useful public purpose.

Aside from the detailed matter of the addresses, and leaving out of account the three intended for schools, their distinctive feature as broadcast addresses was that they were on current economic events. While they were intended to be consecutive over a period, they were not part of a pre-arranged course in which the end is seen from the beginning. Frankly they were an experiment, and the preface, in which the author indicates what he had in view, the conditions and his impressions of the experiment, is by no means the least important part of the book. Whether the experiment is to be continued and ultimately become a regular part of the broadcast news service is apparently not yet decided. No doubt the decision will be mainly determined according to the information which the B.B.C. must have as to how addresses on current economic events are generally received. Speaking without any information, but assuming that the recent addresses were well received—surely a reasonable assumption in these days—it would seem to the present writer that there is ample reason why the decision should be in the affirmative, provided that

there are a sufficient number of Sir William Beveridges available to deliver the addresses. This is simply to say that those entrusted with the task should be able to "get themselves across" which implies that they should be lucid in expression, sincere, and that their supreme aim should be an objective presentation of the subjects on which they choose to speak.

The basis of the second book is again a series of broadcast talks delivered by Mr. Crowther in the last three months of 1935. The words 'economic structure' in the sub-title comprehend such topics as the national income and its distribution, the occupations of the people, foreign trade, government revenue and expenditure, the money system including foreign exchange, and the significance of the consumer in relation to the whole. Obviously Mr. Crowther could only deal with these topics on the broadest of lines, but he is to be sincerely complimented on the performance of his task, also the B.B.C. for having made the talks available to its extensive audience. That those who heard the talks will welcome the opportunity of having them in this more permanent form is a most reasonable supposition. Moreover, there seems good justification for the publisher's suggestion that, together, the talks make up a book which will be a helpful guide to those who seek enlightenment on the elementary facts of economic life, and which might serve as a text book for secondary schools and centres of adult aducation.

G. W. Daniels

Lectures on Political Economy, Vols. I and II. By Knut Wicksell. (Routledge, pp. 299 and 238. 8s. 6d. net each.)

Taken together these lectures of Wicksell constitute a work which is at once of notable value for the student, for the historian of economic theory and for those interested in the methodology of economic analysis. It is a tribute to say that the first value is that on which the reviewer is justified in placing the primary emphasis. Pre-eminently this work is an illustration of the value of the marginal method in economics, and if, in some respects, notably in Wicksell's treatment of the relations between utility and value, the approach adopted is one which in more recent years has come under suspicion, this does not detract from that great merit of the work which lies in the

precision and ease with which the conditions and nature of equilibrium are demonstrated by the marginal method of analysis. It is of interest to contrast Wicksell's work with that of Marshall, for it may well be thought that each remedies deficiencies in the other, approaching the subject matter from divergent angles despite an underlying unity of technique, together to form, for the understanding student, a key to the more important problems of economics. The imprint of the mathematician is much more observed in Wicksell's work, which is characterised by a precision and coherence, or, alternatively perhaps, by a didacticism and simplification which would not have been acceptable to Marshall or to the Marshallian.

It is, perhaps, unfortunate that in the realm of monetary theory, Wicksell's name should be linked most closely with that most controversial of concepts "the natural rate of interest," but that is one factor, among others, which will excite the interest of the specialist student. Like the first volume, the second is of great pedagogic value, providing a valuable guidance to those problems with which it deals—namely, the nature and theory of money. It is, however, in his treatment of the conditions of general equilibrium, together with his exposition of the theory of interest and of production that Wicksell will continue to excite attention in those interested in what still show themselves to be among the important unsettled problems. A criticism or appraisal of Wicksell's work in these fields would be out of place, for it would be impossible without raising afresh matters which at the present time are the subject of the keenest discussion. All that it is necessary to notice is that it is the views of Wicksell on these matters, perhaps, modified or perhaps interpreted, that still lie at the centre of debate, and that it is to the editor of these works, Professor Robbins, that our thanks are in large part due for making these views readily accessible.

J. Stafford

Crises and Cycles. By Wilhelm Röpke. Adapted and Revised by Vera C. Smith. (Hodge. pp. 224. 10s. 6d. net.)

This work is adapted from the author's *Krise und Konjunktur*, the relevant portions of which have been brought up to date, while additional material has been incorporated.

Unlike some recent works on the same subject, this book is not characterised by its offering some new explanation of the phenomenon

of the trade cycle. Indeed, it may be said that the theory outlined is by no means the most valuable observation which Professor Röpke makes, although it should be stressed that the understanding of the central problem which the work discloses is markedly characterised by a sanity and balance which should be valued most highly. The author sees the problem of the cycle as a problem presented by a dynamic economy—" the real centre and root of the cycle is to be found in this rhythmical expansion and contraction of investment " (p. 97), and " it only needs one further step to reach the conclusion that the formation of real capital in the economic system can apparently not be speeded up and extended beyond a certain degree without introducing a disturbance corresponding to the degree of ' forcing ' " (p. 99).

Nor is the particular value of this work to be found in the very lucid presentation of the problem or in the interesting historical survey of the phenomenon during the nineteenth and twentieth centuries. It is pre-eminently to be found in what is not perhaps inaptly described as the level-headed and balanced judgment with which Professor Röpke gains our confidence when he approaches critically those views and those panaceas which have been so much urged during the recent depression. It is this sanity in outlook which he brings to bear upon the theories of the trade cycle now current, and upon those methods, urged upon the State, for seeking relief from economic difficulties, that gives this book a unique value.

J. Stafford

The State and the Standard of Living. By Gertrude Williams. (London: P. S. King, 1936. pp. 354. 12s. 6d. net.)

This book comprises a survey of those social services which take the form of a direct money payment to the beneficiaries—old age pensions, health insurance and contributory pensions, and unemployment insurance—and, in addition, of Trade Boards and Workmen's Compensation. These services have been singled out for treatment on account of the contribution they have made to the solution of the problem of poverty and to the raising of the standard of living. The incapacity of the individual apart, poverty is a result of personal disaster—of low wages and sweating, the evils of which are cumulative, of old age depriving the worker of quality, of the loss of the principal earner of the family, of sickness and of unemployment. Mrs. Williams

shows that society has come to reject the view that poverty can be wholly or largely explained as a result of drunkenness, early marriage or laziness or other human frailties, and to accept that it is the result of these personal disasters. This change of heart is traced and illustrated by drawing largely and imaginatively on the reports and evidence of and before Commissions, on debates in Parliament, and the observations of reliable commentators. Associated with this change of view have come attempts to eradicate the impersonal causes of poverty which Mrs. Williams deals with in some detail, showing the difficulties that have been met with in so ambitious a system of social legislation and the methods from time to time adopted or discussed for meeting them. At one and the same time, Mrs. Williams sets the problem and its solutions in perspective, and provides sufficient detail about the extent of poverty at different times and the way in which legislation and administration has combated it. This is a difficult task which Mrs. Williams has done well to make this work a stimulating one.

J. STAFFORD

The Study of Prices, 2nd Edition. By Sir Walter T. Layton and Geoffrey Crowther. (Macmillan. pp. 280. 8s. 6d. net.)

THIS work is a revised edition of the well known book by Sir Walter Layton first published in 1912. It has been brought up to date by the introduction of additional chapters, written by Mr. Crowther and by a continuation of the charts and tables to comprehend more recent monetary experience.

Other New Books

CARR-SAUNDERS (A. M.). *World Population.* Oxford, 1936. 12s. 6d. net.

CLARKE (J. J.). *Social Administration including the Poor Laws.* Pitman, 1935. 15s. net.

COHEN (R. L.). *The History of Milk Prices.* Oxford Agricultural Economics Research Institute, 1936. 5s. net.

DURBIN (E. F. M.). *The Problem of Credit Policy.* Chapman and Hall, 1936. 10s. 6d. net.

HABERLER (G. von). *The Theory of International Trade.* Hodge, 1936. 21s. net.

MACFIE (A. L.). *An Essay on Economy and Value.* Macmillan, 1936. 7s. 6d. net.

OAKESHOTT (W. F.). *Commerce and Society.* Oxford, 1936. 7s. 6d. net.

PHELPS BROWN (E. H.). *The Framework of the Pricing System.* Chapman and Hall, 1936. 10s. 6d. net.

THE AGRICULTURAL REGISTER, 1935–36. Oxford Agricultural Research Institute, 1936. 5s. net.

(This work constitutes a most comprehensive and valuable survey of the industry, of the nature and working of state intervention, of movements of prices, supplies and imports, etc. It is a most accessible reference work for those interested in the industry.)

THOMAS (Brinley). *Monetary Policy and Crises.* Routledge, 1936. 7s. 6d. net.

Other New Books

[illegible] Oxford, [illegible]

[illegible]

[illegible] The History of [illegible] Oxford: Agricultural Economics Research Institute, [illegible]

[illegible] Chapman and Hall, [illegible]

[illegible] The Theory of [illegible]

[illegible] Macmillan, [illegible]

[illegible] Oxford, [illegible]

[illegible] of the Pricing System. Chapman and Hall, [illegible]

[illegible] Oxford: Agricultural Economics Research Institute, [illegible]

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[illegible] Macmillan, [illegible]